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HYGEIA

The HEALTH MAGAZINE

PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION

December, 1932 25 Cents

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HYGEIA

THE HEALTH MAGAZINE

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Contributors to This Issue

DR. HERMAN GOODMAN, who describes the crimes committed in the name of beauty, is an eastern skin specialist. . . . Psychologically sound are the ideas advanced by SOPHIA YARNALL in her article on "Sleeping." . . . ANETA P. BEADLE and SIGFRED M. HAUGE are members of the faculty of Purdue University.

DR. J. CLARENCE FUNK, director of the Pennsylvania bureau of public health education, holds the mirror of truth up to "patent medicine" fakers. . . . "Food Service," an essential part in the planning of a meal, is discussed by MISS E. M. GERAGHTY, food consultant. . . . "Have a Safe and Happy Christmas"—CURTIS BILLINGS of the National Safety Council expresses the wish and, moreover, shows how!

"The Doctors Look at Art," and their reactions are reported by DR. INNIS RUNCHEY. . . . DR. W. W. BAUER is director of the Bureau of Health and Public Instruction of the American Medical Association. . . . DORIS W. MCCRAY, consultant in home economics, contributes healthful and tempting recipes for "Christmas Confections."

DR. SOL ROSENBLATT describes the effects of external heat on the eye. . . . The close affiliation between "Playthings and Health" is stressed by ROSE HENDERSON. . . . A. W. CHAPMAN discusses a happy combination—"Homes for Babies; Babies for Homes." . . . JOSEPH CREAMER takes HYGEIA readers on a trip through a pharmaceutic laboratory.

With a vivid pen picture of Sir Almroth E. Wright, DR. CLAUDE LILLINGSTON concludes his series on "Pioneers of Medicine." . . . LUCRETIA PENNY tells what happened when a conscienceless salesman was forced to take some of his own medicine.

ABIGAIL F. HALSEY'S story, "Father Christmas Visits the Cove," portrays one phase of Dr. Grenfell's work in Newfoundland.

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HELP!

"BUT MOTHER, YOU KNOW THE DOCTOR SAID YOU'D BE SICK AGAIN IF YOU DON'T EAT MORE"

Nutrition and Health

MOTHERS everywhere are being urged to make sure that children receive in their food the essentials of good nutrition. Healthful growth is dependent on adequate nutrition. The human being can eat just so much. If he fills his stomach with food because he likes it, without attempting to get materials that will provide energy, mineral salts, vitamins and the necessary proteins for repair, he will begin to show the effects of the deficiencies quite promptly. Throughout the world, scientists are now studying changes in the human dietary. They attempt to correlate these changes with modifications in the types of disease that occur and with changes in the nature of human bodily development. There has been a gradual increase in the amount of sugar eaten by people throughout the world. In Great Britain the amount of sugar consumed annually per person increased from 17 pounds in 1819 to 90 pounds in 1928. In this country the amount of sugar rose until it was approximately 110 pounds a year but has decreased in the last five years to about 99 pounds. Sugar is a pure chemical substance. It does not provide any vitamins, but it serves the purpose of providing energy for the body. It is a flavor which makes food tasty, but it may cloy the appetite. There have been attempts to test the effects of overeating of sugar on the various glands of internal secretion. The relationship of excessive consumption of sugar to colds and even to cancer has been studied, but the evidence thus far is not conclusive. Such evidence as is offered seems to indicate that diets too rich in carbohydrates and too poor in protein may be related to an increased rate of bronchitis, pneumonia and colds.

THE BEST diet, as has been repeatedly said in these columns, is well balanced with some of all the essential food substances. There has, of course, been a tendency of late to make a fetich of the vitamins. An actual deficiency of vitamins of the various types now known results in the appearance of disease. The effects of relative deficiencies of vitamins are not yet certainly established. The public has been extensively informed, both by popular health education and through advertising, of the nature of vitamins A, B_1 and B_2, C and D. Vitamins A and D are to be found in cod liver oil, in concentrates of cod liver oil, in oils derived from other fishes, such as the halibut, in irradiated foods and in other chemical preparations. The effects of vitamin D are also to be had by the use of direct sunlight and by the use of artificially produced ultraviolet rays. It seems to be generally believed among competent authorities that the vast majority of adults in this country do not suffer from any deficiency of vitamins. Nobody can say certainly, however, that children would not grow better and be more healthful if special attention were given to the provision of adequate quantities of all the known vitamins. The diet of the child should contain the necessary substances to provide these essentials in the correct amounts.

THE AMOUNT of vitamin A secured through the taking of one glass of milk may also be secured in one tablespoonful of butter, in one and a half bananas, in half an egg yolk, in four large leaves of green lettuce, in three small leaves of spinach and in half a raw tomato. These are all common everyday foods and it is easy to make sure that the child gets such foods daily.

The foods richest in vitamin C are the citrus fruits. The same quantity of vitamin C that can be secured in one medium orange or in half a cup of orange juice can be had from one third of a tomato, from three large leaves of spinach, from three cups of quarter-inch cubes of carrots, from two raw bananas or from three eighths of a cup of canned peas. No doubt many persons would be much more impressed by such facts regarding diet if the information were presented in a much more technical and less understandable form.

The present economic conditions are such that a vast majority of children, including those of the millions of unemployed, are not likely to get these essential food substances unless special efforts are made to supply them. The figures available from Germany indicate that the children who were born during the starvation period of the last year of the Great War and of the years following are today unable to compete on an equal basis with children born during years when there was no famine. Not only are they more subject to disease; they do not appear to have the same urge for living and for learning. The hope of the future rests largely in satisfactory nutrition for the children of today.

Cosmetic Follies

By
HERMAN
GOODMAN

Common sense becomes uncommonly good sense when it is applied to the use of cosmetics.

WOMEN of the United States spend hundreds of millions every year in beautifying themselves. It is important, therefore, to know some of the inside facts regarding an industry which is being maintained on such a large scale. Both safety and economy demand it.

The tendency on the part of the commercial beauty specialist is toward exaggerated claims of what can be accomplished. A case in point is that of face peeling. Operators promise everything from the removal of wrinkles and blemishes to complete rejuvenation through this process. A simple explanation of the construction of the skin makes it clear why such claims are impossible of fulfilment.

The skin consists of two major layers: the corium, or true skin, and the epidermis, or scurf skin. The hair, nails, sweat apparatus, nerves, blood vessels, muscles, fat glands and lymphatic glands are essential features of the true skin. The epidermis, or outside layer, acts as a protection for the structures underneath. This scurf skin is subdivided into a number of layers, which represent its evolution from the birth or basal layer to the horny external layer. It is this horny layer which comes away when the skin is dry and one palm is rubbed against the other. Modifications of this horny surface form the appendages of the skin, such as the nails and hair.

No chemical, mechanical or electrical device can safely do more than remove the top horny dead layer of the epidermis. This outermost layer is flaked off gradually anyway as the epidermis continues its evolution. The benefit of forced peeling lies in the fact that the attention given the face during the process tends to clean the surface. The warmth of the mask or of the mechanical device used is pleasing, and the psychologic effect on the patron, when she sees the sheets of dead cells peeling off, is gratifying. She feels rejuvenated and is temporarily happier.

A recognition of the histologic structure of the skin will refute another widely advertised claim; namely, that of the healing of burns through the use of some miraculous salve. If the injury is restricted to the epidermis, it makes no difference what is applied; the natural renewal of the scurf skin will obliterate the mark. If the burn or cut extends to the true skin, a scar will remain no matter what is used, as the corium can only be replaced by scar tissue.

A basic knowledge of the microscopic make-up of the skin shows the fallacy of another popular cosmetic nostrum, the claim that certain lotions remove pigment spots such as freckles.

The color of the skin depends on three factors: the refraction of light that strikes the skin, the blood circulating in the true skin (remember how red your cheeks used to get when you still knew how to blush?), and the presence of actual pigment cells in the birth or basal layer of the epidermis as well as of wandering pigment in the surrounding parts of the true skin. The amount of pigment present is the determining factor in the color of the individual. White persons have fixed pigment granules in the skin. Those curiosities known as albinos are absolutely pigment-free, even to the pigment ordinarily present in the eyes. This accounts for the pearly color of their skin, their pale hair and pink eyes. Colored races, of course, have a great deal of pigment.

Peeling the skin of a Negro would not make him white, though one occasionally notices white scars on Negroes. These scars go below the surface skin to the corium. Obviously, therefore, any salve or lotion that guarantees the removal of pigment spots, such as freckles,

is making false claims. Coloring matter in the top layers of the scurf skin can be shed; this partially explains the disappearance of suntan. Summer tan is due to the influx of wandering pigment into the skin under influence of suntan rays of ultraviolet. In winter, pigment is withdrawn from the sunburned skin from within. The superficial tanned epidermis is flaked off.

The thickness of the skin varies, being about twice as thick on the soles and palms as it is on other parts of the body. It is thicker on the face than it is on other portions less exposed to the elements. Over points of pressure, as from a tight shoe, the horny layer increases, forming a callous or corn.

A popular first aid to beauty that can be found on every woman's dressing table is the skin food and nourishing cream. Now the skin is actually an organ, with many definite organ functions. It acts as a protective covering to the more delicate structures underneath. In a limited way, the skin may act as an aid to the lungs. To an even more limited extent, a small amount of the waste gases of the body are given off through the skin. Water passes through, modified as sweat. The skin contains the nerve endings for the sensations of touch, pain, heat and cold. It receives its nourishment, as does every other tissue and organ of the body, through the blood carried to it by way of the ramifications of the blood vessel system. The blood vessels do not leave the true skin or corium. There are no blood vessels in the scurf skin, and in all probability the most external layer of the epidermis does not require any actual nourishment, as these dead cells are waiting only to be shed.

The average individual takes "scalp treatments."

Clearly then there is no basis in the claim that rubbing any cream into the outside layer of the skin will feed the skin cells. The skin has the power to permit the taking into the body of a limited number of substances applied from without. I am willing to admit that certain medicaments have been rubbed on the outside of the unbroken skin, and that general effects have been noted. I still seek proof, however, that any fat or mixture of fats can be rubbed on the outside of the unbroken horny layer of the scurf skin, and, entering into the true skin and the general circulation, can nourish the skin at the site of application. There is no doubt that the mechanical massage required in applying the cream, if continued over a period of time, will prove beneficial, for it brings a change of circulating blood elements to the part massaged.

It might be well here to mention another cosmetic fallacy which is being broadcast: namely, that soap is bad for the skin and should be replaced with cleansing creams. Oddly enough, some creams that have been offered as substitutes for soap, promising even more than "that schoolgirl complexion," are made of the very ingredients of which soap consists.

And now for that bugbear to female beauty which has pursued women down the ages—superfluous hair. The skin of many women is covered with a downy growth of baby hairs which are almost colorless, except on the upper lip, where they are usually accentuated. This fine growth often assumes exaggerated proportions to the woman whom it adorns. She begins a round of treatments which often ends only in a coarser growth of hair and bitter regrets.

The hair is an actual part of the skin. Each layer of the skin, both true and scurf, has its counterpart in the make-up of the hair. Just as one may remove the scurf skin and find that it grows again without sign of a scar, so one may remove a hair and have it return. The impetus for growth of hair, so far as is known, lies about the papilla, which is made up of structures of the true skin. Thus the blood supply for the hair lies in the papilla. The hair, like the scurf skin, is replaceable under ordinary circumstances. However, should the structures about the papilla be damaged or destroyed, new hair will not grow. The loss of the hair is thus analogous to a scar in the true skin.

Despite the use of the word "root," the hair has no root comparable with the root of a blade of grass. True, one will find the word used in many excellent textbooks, but what is meant is the part of the hair that lies hidden within the skin. The little white swelling on a hair when one plucks it from the head or the face is not a root in the accepted sense.

Commercial hair removers may be classed as chemical and physical. No commercial depilatory, no matter how extravagantly advertised, can permanently remove hair, because if it were strong enough to destroy the structures about the papilla, deep in the skin, that cause hair growth, it would completely destroy the skin. Neither will the use of wax or rosin, applied

when warm, and pulled off cold and hard, deter the papilla and its germ cells from starting a new growth.

The chemical depilatory can only destroy the hair structure above the skin surface and close to the surface within the follicle. The sulphide of various metals, such as barium, used in depilatories, acts as an irritant on the skin, but with careful application the irritation is usually temporary.

A popular physical method is the use of galvanic electricity by means of a needle which enters directly into the follicle alongside the shaft of the hair, until the tip of the needle approximates the papilla. The flow of electric current sets up chemical changes leading, when successful, to the destruction of structures about the papilla. When used by a skilled operator with good eyesight, this method is safe but not always successful. It is slow, tedious work, and not every hair removed ceases to be replaced.

The partially bald man goes to the barber shop more and more frequently to have less and less hair cut.

Some overambitious and none too scrupulous persons have advocated the use of what they claim to be a modified x-ray treatment for the permanent removal of unwanted hair. Since the growing part of the hair is deep within the skin, x-ray treatment (and it is not modified x-ray treatment), must be so administered as to give a deadly dose to the skin about the papilla. The overlying and underlying skin is so damaged in the process that ultimately unsightly changes must take place in the blood vessels, leading to malnutrition of the skin, scaliness, excessive dryness, and even to skin cancer.

As far as honest x-ray operators are concerned, it may be said that the x-ray, no matter how applied in order to remove hair, is exceedingly dangerous. Every skin specialist has seen patients whose skin showed its destructive effects; within my own experience, the superfluous hairs may still be seen between areas of devitalized skin that has received excessive x-ray treatments.

Another popular nostrum for which the public pays heavily is the hair restorer in its various forms. Most persons come into the world with every promise of a good crop of hair, but nature does not feel any scruples about rescinding that promise.

The area of the head that is considered scalp measures 120 square inches. The number of hairs on the scalp is estimated at about 100,000, though it varies in different persons even of the same race, and there is a great difference in the thickness and direction. Under general conditions, it takes about a month for the hair to grow ½ inch. The hairs do not grow to the same length all over the scalp. On the crown and back of the head, they may grow from 40 to 50 inches; at the sides, 18 inches is usually the limit of growth, though such long hair is becoming most uncommon. The tenure of life of hair on different parts of the head also varies, and it is a curious fact that more and more women, many of whom are young women, usually considered free from the affliction of baldness, are seeking medical advice owing to loss of hair.

The hair grows most rapidly between the ages of 35 and 60, the years when baldness usually takes its toll. As a man loses the hair from the top of his head, it grows more quickly on the sides and in the back. In other words, the partially bald man goes to the barber shop more frequently to have less and less hair cut. Another of nature's little paradoxes!

The thickness of the individual hair varies. Laid side by side, from 150 to 500 hairs may make 1 inch. Contrary to ancient belief, still held by some people, there is no tube running the length of the hair. Singeing the ends of the hair after cutting is only the survival of an ancient error, although cutting the hair is held to improve its growing qualities.

The hair is continually being shed, new hair replacing the old until the number of new hairs begins to lag behind the number of fallen ones. Why does the hair on some heads replace itself, while other heads go bald? Complete ignorance on the part of the public and equally complete faith in miracles offer an irresistible lure to cosmetic quackery.

Medicine does know the cause and cure for loss of hair in certain instances; it sometimes occurs after fever, or is caused by changes in physiologic states, and diseases local to the scalp. Sometimes, in these cases, the hair will return even without treatment. However, there is a large group of losses from undetermined causes. Many theories have been advanced, such as heredity, nerve disorder, and infection, but none of them has been generally accepted; and the hair simply will not be coaxed back.

Without expert diagnosis, no proper treatment can be offered. Certain diseases of the general

body metabolism or any one of a number of dangerous infectious and contagious diseases, which a beauty parlor operator could not possibly recognize, may be causing all the trouble. However, the average individual, thanks to the power of advertising, takes a course of "scalp treatment," which not only retards his own recovery but often engenders the spread of infectious and contagious disease.

The cosmetic expert should restrict his activities to hygiene, the proper cleansing of the hair and scalp; he should offer soap under the guise of soap, and massage as that and nothing more. But the temptation to mulct the innocent is too profitable. A flagrant example of cosmetic dishonesty is an advertisement which promises to "prepare the scalp to grow hair." It does not promise to grow hair—no, indeed. It promises merely to prepare the scalp in the event that niggard Nature suffers a change of heart and renews her bounty. An analysis of the preparation showed that it was a mixture of cheap soap and cheaper, ill smelling tar; but the advertisement is so worded that it is proof against legal action.

"But," you will say, "some of the widely advertised and used hair tonics must be good, or they could not continue to exist." I repeat that no external medicine has yet been invented that will make hair grow. Recall the physiology of the skin and hair and also the directions which come with every so-called hair tonic. No two preparations are based on the same product, yet the instructions always direct one to rub it in vigorously and to cleanse the scalp with a stiff bristle brush before using the preparation. What is aimed at is stimulation of the scalp, as this is the only part of the ritual that can possibly do any good; the stimulation acts as a counterirritant. The tonic on the hair itself is of little use. The hair is an end-product just as the scurf layers of the skin are end-products.

Divested of exaggerated claims, scalp preparations are not objectionable. They offer an incentive toward keeping the scalp clean, which is most important. Persons living in the city should wash the scalp about once in ten days; those working in a dusty atmosphere may require more frequent cleansing. Most scalps are benefited by rubbing with the ends of the fingers, care being taken that the nails do not scratch the scalp. A vigorous massage with an oily preparation will have a tendency to overcome dryness; an alcoholic preparation may be of help to an overoily scalp. The scalp must be reached by parting the hair so that one rubs along the exposed line. The hair-brush should be washed at least as often as the scalp.

Hair coloring is another subject which interests and agitates a great many. Some persons want to restore the original color; others want to change the mixture of ancestral pigments with which they were endowed.

In any event, for several reasons, chiefly economic, many persons do not want to have gray hair. Accordingly, they have their hair dyed, tinted, or, as the beauty parlors euphemistically phrase it, have their natural color "restored."

The hair coloring industry is a flourishing one. Millions of packages of hair dye are sold annually for home consumption. Beauty parlors find hair dyeing a lucrative source of income, and comparatively little harm is done. Occasionally disaster is invited by too zealous application, the use of one dye over another of a different chemical composition, absorption by reason of a diseased scalp, or extreme sensitivity.

The chief objectionable feature of commercial hair dyes lies in the fact that the labels do not even indicate the presence of ingredients which may be harmful to some skins. Misleading names are often used, or the statement is made that vegetable henna is present; henna is present, but only enough of it to justify the label. The active dye ingredient is something entirely different.

Not so many years ago I saw definite evidences of damage caused by the use of hair dye. It was a period, I have since learned, when the manufacturers of hair dye were a little too enthusiastic and released preparations before they had tested them sufficiently to insure comparative harmlessness. Further experimentation resulted in the withdrawal of these preparations and the substitution of improved dyes, as it is to the manufacturer's interests as well as to those of the public that the product is rendered as safe as possible. The same statement may be made with regard to other cosmetic preparations, such as lipstick and rouge. Every well known manufacturer uses dyes which the United States Government licenses for use as coloring matter in foods.

The vast proportions assumed by the cosmetic industry have started a movement toward government supervision. The objections to prohibitory legislation are numerous. I do know, however, that the threat of supervision from without has had to some extent a beneficial effect. Most of the reforms are bound to originate within the industry, for it is in the last analysis a question of survival of the fittest. Greedy, ignorant manufacturers will automatically eliminate themselves. Rank imitations of the products of bona fide manufacturers offer a more difficult problem.

The extent of the cosmetic industry is the answer to the question of whether it justifies itself. Esthetically and economically it is necessary to well being. I look forward to the time when, through lack of patronage and through competitive pressure the dishonest practitioner and manufacturer will be forced out, but it would take a rare optimism to believe that this Utopia is imminent.

EWING GALLOWAY

HYGEIA WISHES YOU A VERY MERRY CHRISTMAS

Christmas Confections

Christmas cheer, supplied by tempting, wholesome cookies, candies and puddings.

By
DORIS W. McCRAY

COOKIES and candies seem to link themselves with Christmas in the minds of all—candies as toe fillers in stockings on Christmas morning; candies on the Christmas tree; candies munched while playing a game of cards or while reading a book, or gazing at the crackling logs in the open fireplace. Tempting sweets are offered everywhere, and one is liable to take a vacation from all rules for correct eating, only to discover that the same rules that govern the remainder of the year should be enforced at Christmas. Sweets are best when served at the end of light, well balanced meals, being considered a wholesome part of those meals because of the valuable food they contain.

Sugar is a quick energy food. Cane or beet sugar is quickly split into simple sugar, which is absorbed at once by the blood stream, giving quicker relief from fatigue than do foods that are digested more slowly. Corn

Date Bars

2 eggs
1 cup brown sugar
½ teaspoonful salt
1 cup cocoanut or ½ cup nuts
½ teaspoonful baking powder
⅞ cup pastry flour
1 cup dates

Sift together the measured flour, salt and baking powder. Mix in the cocoanut or nuts and the dates sliced into small pieces. Beat the eggs until foamy, and beat in the brown sugar gradually. Stir in the dry ingredients. Spread in a well greased pan about 9 inches square. Bake in a moderate oven (350 F.) for approximately twenty-five minutes. After the pan has been out of the oven for three or four minutes, turn the cake out, and cut it in strips while warm. Sprinkle with powdered sugar.

Fruit-Nut Chews

1 cup brown sugar
1 cup white corn syrup
1½ cups light cream or evaporated milk
3 cups seedless raisins
1 cup chopped walnut kernels
½ teaspoonful salt
1½ teaspoonfuls vanilla

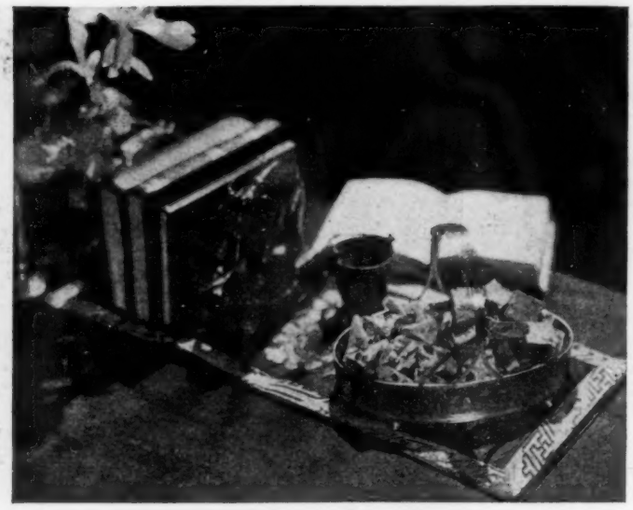
Boil the sugar, corn syrup and cream, stirring constantly until the mixture forms a firm but not brittle ball when tested in cold water (240 F.). Remove the candy immediately from the fire and add the nuts, raisins, salt and vanilla. Mix the ingredients thoroughly. Pour the candy into a greased pan and set it in a cool place until it is thoroughly cold. Cut it in desired sizes and shapes.

Prune Cookie Strips

2 cups small bread cubes
1½ cups cooked prunes
1 cup sugar
½ cup butter
2 eggs
½ cup flour
½ teaspoonful baking powder

Brown the bread cubes in the oven and lay them into the bottom of a greased baking pan. Pit the prunes, cut them in pieces and spread them over the bread cubes. Cream the sugar with the shortening. Add the egg yolks, flour sifted with baking powder, and stiffly beaten egg whites. Pour this mixture over the prunes. Bake for about 45 minutes in a slow oven (275 F.). When cold, cut in strips.

Orange divinity in the making.



A genuine treat — fruit nut chews.

ORANGE DIVINITY

First Mixture
1½ cups sugar
½ cup water
½ cup light corn syrup

Second Mixture
1 cup sugar
½ cup water

Other Ingredients
2 egg whites
2 oranges

Cook the first mixture to 242 F. without stirring. Low heat is used to prevent burning. Cover the pan tightly as soon as the sugar is dissolved. Pour the mixture slowly, in a thin stream, on the stiffly beaten egg whites, beating it in the meantime. Then pour in the second mixture, cooked to 251 F. Beat this all the time, and when it is cooled, add 2 teaspoonfuls of orange juice and the grated yellow rind of the oranges. Continue beating until the candy is firm to the touch. Pour it into a buttered dish. This candy may be delicately colored with yellow or orange paste or powder coloring.

VALLEY DELIGHT

½ cup seedless raisins
½ cup cooked dried figs
½ cup cooked prunes
2 slices pineapple
½ orange sliced and skinned
½ cup cooked dried peaches
1½ cups boiling water
½ cup sugar
½ teaspoonful lemon juice
½ teaspoonful vanilla
Whipped cream
1 package lemon flavored gelatin

syrup, honey, and the sugar in fruits are already in that "predigested" form and can be tolerated in rather large amounts.

In fruits, in addition to the sugar there is the fruit acid, particularly needed in meals of meats, cereals, bread and cake or starchy puddings. Fruits fall into the same class as vegetables and milk, so far as maintaining normal alkalinity of the blood is concerned. They are rich in valuable minerals.

Gelatin and nuts are good protein foods; hence a candy or pudding full of nuts might easily furnish the basis for reducing the size of servings of meat. The energy supplied by butter and other shortenings is in a concentrated form and is not so quickly absorbed; it therefore has the effect of lengthening the time before one becomes hungry again.

Sweetened bread or cake is suitable for the end of the meal.

Good, wholesome foods may be combined into truly delectable desserts or confections. The accompanying recipes have been selected with an eye to healthfulness and freedom from the effects of overindulgence as well as to attractiveness of appearance and taste. They require ingredients commonly found in almost every kitchen; they are easily followed, and the results are uniformly good.

(Continued on page 1148)

Cover the raisins with water, and allow them to boil for five minutes; drain, and dry them on a towel. Pour boiling water over the gelatin and stir until it is dissolved. Add sugar, lemon juice, vanilla and cut fruit. Pour into a cold wet mold and set aside to harden. Serve with sweetened whipped cream.

CREAMY LAYER CANDY

2 cups sugar
1 cup milk
2 teaspoonfuls butter
½ cup peanut butter
½ teaspoonful vanilla

Mix all the ingredients together, stir and cook until the mixture feels waxy when tested in cold water (220 F.). Remove the mixture from the fire, cool for five minutes, add vanilla, and beat until it is creamy. Pour half of the candy into a buttered pan, spread over it the following mixture, and pour the remaining creamy candy on top:

2 cups seedless raisins
½ cup nuts
2 tablespoonfuls marshmallow crème
½ teaspoonful lemon juice
½ teaspoonful lemon rind

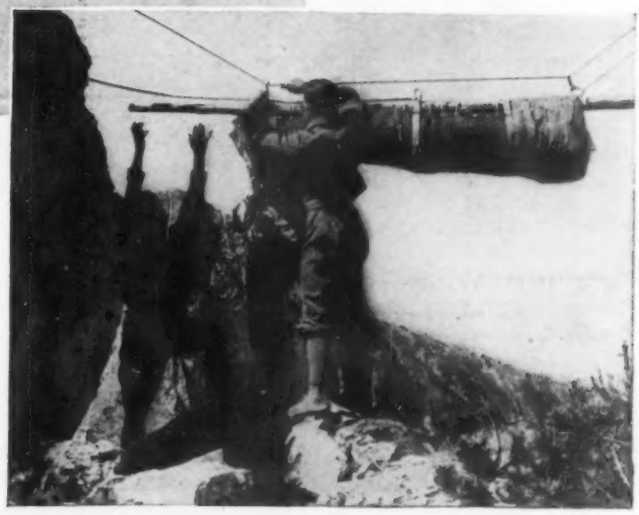
Boil the raisins for five minutes, drain and cool. Mix all ingredients together and blend until creamy. This mixture may be prepared in advance. The creamy candy for the top layer may be kept soft by putting the pan into hot water while spreading this fruit paste. When the candy is cold and firm, cut it into strips.

First Aid
in the Bavarian Mountains

Aids of the German Red Cross are shown dispensing immediate medical attention to an injured mountain climber before he is taken down the mountainside.

Stationed in the Bavarian mountains are scouts who radio for first aid when they see a fallen mountaineer. The picture to the left illustrates one method of getting the injured down the mountain.

Those who are less seriously injured are carried in the manner illustrated in the picture below.



Up-to-date rescue devices are inspected constantly to insure "a safe landing" to injured mountaineers.

Photos by Keystone View Company

FOODS

Their Selection and Preparation

FOOD SERVICE: I

Lowrey-Sill

THE WISE selection and careful preparation of foods are the foundations on which rise the structure of the perfect meal. To them the clever hostess adds the landscaping that will make a harmonious background, for thoughtful planning takes charm and consistency into consideration. The carefully chosen appointments—sparkling glassware, delicate china, lustrous silver—and the deft, knowing touches in decorative notes and arrangements complement the meal and compliment the guests; and the result is an artistic and social as well as a culinary triumph—a perfect meal in a perfect setting.

Service, the determining factor in the completeness of the structure, may be grouped under the following main captions: (1) table or tray service; (2) arrangement of food, grouping and size of portion; (3) garnishes, and (4) temperature of food. The discussion of food service usually begins with an admonition to use excellent linen, the daintiest of china, and silver of good quality.

Various kinds of dishes may be purchased for table or tray service. Pottery is a general term used to cover a wide range of materials. The better nomenclature would use pottery to designate opaque ware and the term procelain to indicate the grade called china.

In Europe are found wares made from hard porcelain, while the American made wares are from soft porcelain, semivitrified. The smart

English bone-porcelain is widely known for its variety of lovely patterns.

A note of value is whether the decoration is underglaze or overglaze. In underglaze the decoration is put on the article before firing; in overglazed it is applied after firing. The underglaze lasts much longer but does not always admit of the use of the desired colors. One factor in the selling price of the product is determined by the evenness of every piece; there should not be any crazing, buckling or untidily applied decoration. Earthenware has a less stable glaze; without the glaze it is unlovely.

The open stock method of sale indicates a stock that is always in the dealers' hands, unless closed out; this method affords the possibility of buying as few or as many pieces as one wishes at a time. The closed stock method allows purchase by set only; single pieces may, of course, be ordered from the factory, but this involves considerable delay in obtaining the merchandise.

By

E. M. Geraghty

Whether one is serving a meal in one's own home or ordering an entire new installation for a large institution, one should plan to use variety and as much originality as is consistent with good taste. Costliness is not the only measuring stick for desirability. Inexpensive seconds, of good line and lovely color, may be picked up for a few cents, and if used with discrimination they will add a note of needed interest to meals whether for the well or for the ill.

Glass is classified as lead glass or lime glass, according to the content of the mixture. Lime glass is tough and strong and is used mainly for pressed glassware. In the manufacture of pressed glassware, the molten glass is poured into a mold of the desired shape and is pushed into every part of the design by a plunger. Cool air is then introduced to set the form. Polish is imparted by means of a reheating and of manipulations by workmen. The glass is next tempered. Lead glass is elastic, so it may be used in the production of blown glass. The molten glass is taken from the furnace and blown by a workman into the shape of a miniature balloon. This is then rolled on a slab until it is about the shape desired; it is next placed in a cork-lined mold and blown to the final size and shape. Blown glass is, of course, much more delicate than pressed glass. It is also clearer and of greater brilliance in the light.

The delicate Venetian glassware is made from a compound containing soda-lime.

The cut glass of grandmother's day was blown glass in which, after the design had been cut, the entire surface was polished. It had a brilliant luster, a bell-like ring when tapped, was heavy and had a smooth interior finish. Today, so-called cut glass is made from thick, pressed glass; this product is dull looking, has ridges on the inside and is quite light. The patterns are ordinary, and the surface is dull.

Rock crystal is glass cut from pure rock crystal. The product is beautiful but also expensive. Reproduction of rock crystal is merely a pressed glass with a rather delicate design cut on the surface. It is usually shown in a good line and is favored by persons who like the illusion of beauty but cannot afford the genuine article.

The term silverware as usually employed covers both sterling silver and silver-plated ware. Sterling is $^{925}/_{1,000}$ pure silver, while the plated ware consists of what is known as a base metal that has been coated or plated with pure silver. It will be noted that the actual silver in a silver-plated article is even purer than sterling silver. The reason for this, of course, is obvious, as the $^{75}/_{1,000}$ alloy in sterling is necessary in order to give the pure silver a certain degree of stiffness and durability and make it possible for the silversmiths to work the metal, whereas in plated ware the base metal supplies all the durability necessary and makes possible the use of pure silver in the plating.

The term sterling dates back beyond the thirteenth century to the Easterlings, who were traders of the Hanseatic cities of Flanders and the Lowlands. It was in 1216 A.D. that King John of England called these Easterlings to his court and, because of the reputation that had been earned by their silver tokens of exchange, assigned to them the task of reforming the English coinage. The name sterling remains as a lasting tribute to the commercial integrity of these Easterlings.

The beginnings of the silversmith's art are lost in the mists of the earlier centuries; nor was the application of one metal on another unknown to the ancients. For many years, however, it had been a lost art, and it is not until 1760 that there is written information as to silver-plated ware.

Thomas Bolsover, a skilled silversmith, in the year 1742 evolved the idea of combining copper with silver in layers ready for manufacture in any desired form. This was in Sheffield, England, and the result of Bolsover's discovery was Sheffield plate—a term that has suffered greatly since then because of careless and inaccurate use. There is comparatively little genuine Sheffield plate in existence today, although the term has been applied to many articles of recent and often inferior manufacture. Thomas Bolsover's method of applying a thin layer of silver to one of copper was the accepted form of silver plating until the discovery of the electroplating process in the

middle of the nineteenth century. Since that time, silver plate has meant ware that has been plated by means of an electric current which separates the pure silver from a bar of that metal and causes it to adhere to the articles that are to be plated. This process was perfected in 1847 by three brothers named Rogers who were silversmiths in Hartford, Conn.

Both sterling silver and silver-plated ware are divided into two distinct classes: flat-ware and hollow-ware. Flat-ware consists of forks, spoons, knives and similar pieces. Hollow-ware includes tea sets, coffee sets, dishes, bowls, meat dishes, vegetable dishes and other similar pieces. In the early history of silver-plated hollow-ware the base metal was Britannia ware, which was the immediate successor of the old pewter ware. Later, Britannia gave place to white metal, a harder, whiter and finer metal. The best plated ware today has for its base metal, nickel silver, which is practically indestructible and is composed of nickel, copper and zinc. Nickel silver is capable of taking a high polish, and when so finished it might easily be mistaken for silver.

Triple plate is a term used in the trade to denote the fact that the article so stamped contains three times the plate which its manufacturer uses as a standard; hence triple plate differs in the case of each brand manufactured. Quadruple plate on the contrary is a mark which means practically nothing and has been used almost exclusively on low priced silverware as an imitation of the triple plate mark.

The making of a piece of high grade silver plate involves many operations. A teaspoon, for instance, must go through more than thirty distinct stages between the time the blank in its first rude state is cut from the sheet of nickel silver until it lies, a completed spoon, in a velvet-lined box on the show case.

The plating room is a large clean place, lighted from overhead and containing rows of tanks filled with a beautiful clear amber solution in which the articles to be plated are suspended. The room is scrupulously clean. Silver is a curiously capricious metal, and silver plating does not permit any untidiness. Dirt and carelessness would be fatal to results. Many of the solutions in the tanks have been in use for years; that is, the original solution of cyanide of potassium, which forms the plating medium, is largely the same, although repeatedly treated and added to. The more constantly it is used, the better the solution behaves, and if it is allowed to remain idle for even a few days, trouble is liable to result.

The articles to be plated are suspended in a frame in the silver solution. This frame is connected with the negative pole of a magneto-electric machine, while the silver is suspended in the solution from bars and connected with the positive or opposite pole of the machine, thereby forming a circuit for the electricity through the solution.

The amount of silver deposited is regulated automatically. As soon as the articles receive the proper weight of silver, the electric current is broken, the plating stops at the same instant, and an alarm bell rings to notify the workman that the articles have received the proper weight of silver. When the ware is removed from the bath, it is snow white. It is then either brightly burnished or given a soft finish.

In one corner of the plating room there is a special tank containing a stripping solution. There are thousands of dollars worth of silver bullion in the plating room. Every bit of wire or metal by which articles are suspended in the tanks becomes plated with silver, and a piece of soft copper wire, after being used three times to hold work while plated, takes on a crust of pure silver so thick as to make it extremely brittle. All this silver must be recovered. Again, plated work is sometimes sent back by the eagle-eyed inspectors because of some almost imperceptible defect. This valuable bullion is recovered in the stripping tank, where the plating process is reversed. Articles to be stripped are connected with the positive current and give off their precious metal into the solution from which it is gathered at the negative pole of the circuit.

The thickness of the silver deposited, however, is not the only requisite to insure quality. The plating must be hard as well as thick. This is accomplished by means of burnishing after the article is plated and before it receives its final buffed finish. When the article comes out of the plating bath, the silver deposited is in a comparatively porous and fluffy state. The buffing will hit the high spots, but burnishing turns the minute edges, closes the pores and makes the silver hard and compact, vastly increasing the wearing quality.

In the making of hollow-ware there are three possible beginning points: casting, press work and spinning. Some articles first assume the form in which they are to appear as the result of the first named process; that is, by hot metal being poured into a mold. Others are the result of the second process, in which the body of the article acquires its shape as the result of tre-

(Continued on page 1092)

Century Photos

Glass blower's or iron puddler's cataracts result from continued, excessive heat, which destroys the transparency of the eye.

Eye Hygiene and Heat

By
SOL ROSENBLATT

THE EYE may be compared with an automobile engine, which must have a certain temperature to work efficiently but which will soon be destroyed if it is allowed to become overheated. The combustion of operation quickly heats the engine, but its temperature is kept within safe limits by elaborate devices for cooling water in a radiator and circulating that cooled water through the engine.

Similarly, the eye tends to become heated, not only through the chemical changes which take place in the eye and serve to convert light waves into brain impressions but also through the direct action of the light waves themselves. Light and heat are the same forms of motion differently perceived. Consequently, although it would be possible to filter out the heat that accompanies the light in the normal use of the eyes, heat as well as light enters the globe of the eye, and it is magnified by the cornea of the eye as well as by the lens which is behind the pupil. The refractive media of the eye act practically as a condensing lens. The simple experiment of setting a piece of paper on fire with the ordinary sun's rays focused through a condensing lens is a well known example of what a condensing lens will do.

The safeguards provided by Nature against overheating the eyes function in a manner somewhat similar to that of the water-cooled motor: transparent fluids are circulated within the eye and the anterior surface of the eye is bathed with fluid coming down from the tear gland above the eye. One is not normally conscious of the flow of tears over the surface of the eye, as they are in part evaporated on the spot, thus cooling that organ; the surplus, if any, is carried off by the tear ducts into the nose, where it is evaporated to help the normal secretions of the nose to moisten and warm the air as it enters the lungs.

It should be borne in mind that any external heat entering the eye is added to the body heat of 98.6 degrees which surrounds the eye. What is the harm in allowing an eye to become too hot? The peculiar special function of the eye requires transparency, and excessive heat destroys that quality. Other parts of the body,

as, for example, the skin of the hand, may be injured by heat and apparently fully recover all their functions. If the tissues at the site of the injury become more dense and consequently less translucent, that does not affect the function of the hand; but if the same injury and recovery occur in the specialized tissues of the eye, the loss of transparency is fatal to the function of that special organ, even though its form and strength are fully regained. It is not pertinent to this discussion to distinguish whether the effect of heat is coagulation of the albumen found in the cells of the eye or whether it is the formation of distinct scar tissue peculiarly related to the specialized tissues under consideration; it is enough that opacities of more or less density result, impairing the organ's function.

What kind of heat should be considered in this connection? The heat generated by excessive use of the eyes over long hours, added to the ordinary body heat; the heat of fever repeated over a period of years; the heat of brilliant sunlight or of too intense artificial light, and the heat of furnaces over a period of time. As for furnace heat there is an occupational disease known as glass blower's or iron puddler's cataracts. Dr. De Schweinitz claims that he can tell from a comparison of cataracts resulting from such an occupation whether a man stoking a furnace is right-handed or left-handed. As to sunlight, cataracts are frequent in India, where the sunlight is brilliant and the reflections are glaring. Cataracts have also been noticed in the arctic regions, where the brilliant reflections from the snow, and the condensing-lens effect, on the inside of the eye, produced by the cornea and the lens of the eye, more than make up for the cooling effect of the temperature on the anterior surface of the eye.

Beware of Bunglers

There is a group of nonmedical bunglers who advertise that their treatments enable the patient to throw away his glasses and still see normally. The treatment consists, among other things, in playing an intense light on the eye, sometimes even utilizing sunlight. Nature does its utmost to protect the eye, and when this intense light is played on it, the pupil closes down to a pinpoint. In that condition, only central rays of light are admitted to the eye. The peripheral rays, which would be affected or distorted by any irregularities or abnormalities of the cornea or lens, are cut out by the iris or curtain of the eye, which now covers all but the pinhole opening in the center, and the central rays, the only rays that are not refracted or bent by the structures of the eye, give a sharp image, no matter what refractive error the eye may have. This is easily demonstrated if one makes a pinhole in a card and peeks through it with one's glasses off. This method was evolved by a Dr. Bates who called it the central fixation system. Bates ended in an insane asylum, but the method still lives on, or, I might say, some still live on the method. Again it is shown that Barnum was right and that any cult with some show of plausibility can obtain a following. The inherent fault of the method is that just as nature diminishes the size of the pupil when there is too much light, so as the light diminishes, the pupil enlarges to furnish enough light to stimulate the retina. Then if there are any refractive irregularities, glasses are quite essential. It is just like a camera, in which the iris diaphragm is stopped down to a small aperture in a bright sunlight, but in which the picture is a failure in a dull light unless the iris diaphragm is thrown wide open.

Cultists May Do Irreparable Damage

There is, however, another important fault in this system, and that is the reason I have gone into such detail on this subject: the playing of strong light on the eyes will, over a period of time, develop cataracts. This may not be noticed until a period of years later, after such an interval that the patient has forgotten about the "treatments" and does not blame any one, thinking that the disease is merely a visitation of fate. Nevertheless, the responsibility for that unfortunate affliction belongs squarely on the shoulders of the cultist who gave those "treatments." It would not be so bad if the Bates followers took only the patient's time and money, but also they cause untold damage.

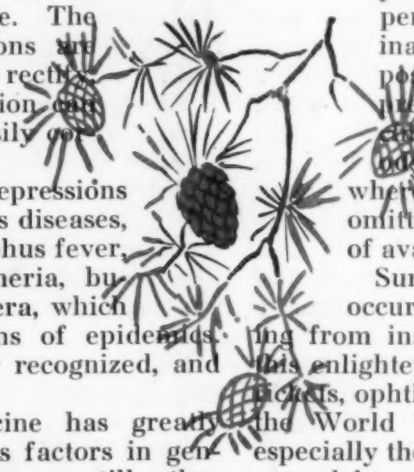
Finally, it should be remembered that the eyes have developed to their present high state of perfection through countless ages of use under normal daylight conditions, and while they should be protected from too brilliant or too intense light, they should also be given sufficient light for the work they have to do and should not unnecessarily be pampered by the use of colored glasses, except as they are prescribed in certain occupations by the oculist. To try to improve on the daylight conditions to which the eyes have been molded is like trying to paint the lily.

The foregoing discussion will indicate that too long hours of continuous use of the eyes should be avoided by a rest at intervals, if only for a few minutes, at which time they can be benefited by being bathed with ordinary cold water from the faucet. Last, but not least, it should again be emphasized that any substantial refractive errors should be corrected with glasses.

Avoiding a Health Depression

By
ANETA P. BEADLE
and
SIGFRED M. HAUGE

DURING the last few years, people have been concerned about the economic depression, but few persons have been concerned about the possibilities of a health depression. The public fails to realize that conditions follow economic disasters which may undermine the health of the people. The causes of economic depressions are often intangible and difficult to rectify, but those of a health depression can be readily ascertained and easily corrected.



In the past, most health depressions have been caused by contagious diseases, such as influenza, smallpox, typhus fever, yellow fever, malaria, diphtheria, bubonic plague and Asiatic cholera, which often assumed the proportions of epidemics. These diseases are now easily recognized, and epidemics are controlled.

Although preventive medicine has greatly reduced contagious diseases as factors in general health depressions, there are still other contributing factors, such as deficiency or nutritional diseases, which are important. Thus, the prevention of a general health depression is dependent on fresh air, sunshine, good water and adequate food. The first two factors are available to every one; the third factor requires supervision, and the fourth, education.

Health education has been aided, promoted and sometimes improperly exploited by popular food slogans. The keynote of such slogans some years ago was "calories," more recently "vitamins," and at the present time there is a turn to the more general term "health." Many of these so-called health slogans and campaigns are conducted primarily for commercial purposes, taking the form of advertising projects which are often misleading. Into these programs, at times, a few grains of truth are permitted to enter, as they are presented to the public through the printed page or over the radio. In contrast to these schemes, there are other campaigns that have a sincere motive in attempting to guide the public through proper food selection toward good health. It is often difficult for the average person to judge, without confusion, the true value of much of this propaganda and to make an intelligent application of only the reliable information toward the maintenance of health by proper food selection.

It is a simple problem for the average family in times of prosperity to provide an adequate diet for the maintenance of health. During periods of economic depression, crop failures or other catastrophes when the available foods are restricted by the purchasing power of the family, many persons are liable to suffer from inadequate diets. Aside from the possibilities of starvation, health depressions affecting both adults and children may occur during these periods, owing to efforts to economize, whereby some essential food factors are omitted from the diet by unwise choice of available foods.

Surveys conducted to determine the occurrence of deficiency diseases, resulting from inadequate diets, show that even in this enlightened day, too many cases of scurvy, rickets, ophthalmia and pellagra occur. During the World War, great numbers of children, especially the Danish, suffered from ophthalmia caused by restriction to butter substitutes and skimmed milk while the butter supply was being sold to Germany. When an embargo was placed on butter and the children received their adequate supply of vitamin A through butter and whole milk, the occurrence of ophthalmia practically disappeared, although many who were previously affected suffered blindness for life. In this country it has been estimated that at least 200,000 persons suffered from pellagra in 1929, and recent reports seem to indicate that the number of cases is much higher now. Hess recently stated that, in his opinion, as a result of this economic depression the cases of scurvy in its various forms will be found to have increased greatly.

Unfortunately, unsatisfactory diets do not always produce recognizable symptoms of deficiency diseases. Often they manifest themselves through physical underdevelopment, poorly formed bones and teeth, growing pains, pains in the joints of adults, such disorders as indigestion, constipation, and skin eruptions, and, especially, lowered resistance to disease. From a recent survey made in Philadelphia, the increased amount of illness among unemployed families seems to be closely related to extensive unemployment. This illness is undoubtedly a result of lowered vitality and increased susceptibility to disease caused by inadequate diets

resulting from the necessity of limiting the food budget.

When unemployment or other factors are present which affect the purchasing power of the family, there is a tendency on the part of the housewife to economize first through her food budget. The so-called extras, such as salads, vegetable side-dishes, fresh fruits and dairy foods, are then looked on as luxuries which are to be omitted from the menu. She may first replace butter with butter substitutes and then gradually omit fruits, milk and vegetables. Finally, the typical dinner for the family will be reduced to what she considers the minimum essentials, such as meat, potatoes, gravy, bread, butter substitutes and occasionally a dessert, either pie or pudding.

The question naturally arises: Have her efforts to economize been successful both financially and for the health of her family? An answer to this question was recently sought, when such a diet was tested by feeding it to young rats. This diet consisted of chuck roast of beef, boiled potatoes, white bread, butter substitute, gravy made with water, and rice pudding containing raisins. It was found that these rats failed to grow, appeared weak and unthrifty, were susceptible to colds, and many died.

It is reasonable to assume that the meat, potatoes and bread furnish adequate protein in this meal. By omitting the fruits, vegetables and dairy products, the housewife removed the richest source of vitamins and left in the meal only foods which were poor in these factors. Therefore it is apparent that the chief deficiency of this meal is vitamins.

From this response in rats, it is logical to conclude that children could not thrive on such a restricted diet, and in all probability the vitality of the entire family would be lowered to a hazardous degree. The prevalence of resorting to such limited diets is more extensive throughout the country than is generally recognized. This may largely account for the increased amount of illness among the people of many communities, which often entails added expense.

The best insurance against a health depression is an adequate diet. To assure this, it is essential that all food factors must be supplied in adequate amounts to meet the daily requirements of the body, which are (1) to build tissue (building new tissue in growing children, and repairing worn out tissue in adults), (2) to supply energy and heat, (3) to regulate the body processes and (4) to protect the body from disease.

The tissue builders consist of protein, mineral salts and water. The proteins supply nitrogen-containing compounds which are necessary for the constant renewal of the cells in the body. The more important protein foods are milk, eggs, cheese, lean meat, beans and peas. Mineral salts are essential for growth, especially in the development of bones and teeth. Calcium and phosphorus are the chief elements in bone and tooth structure. Milk, eggs, cereals, vegetables and fruits contain a high percentage of mineral matter.

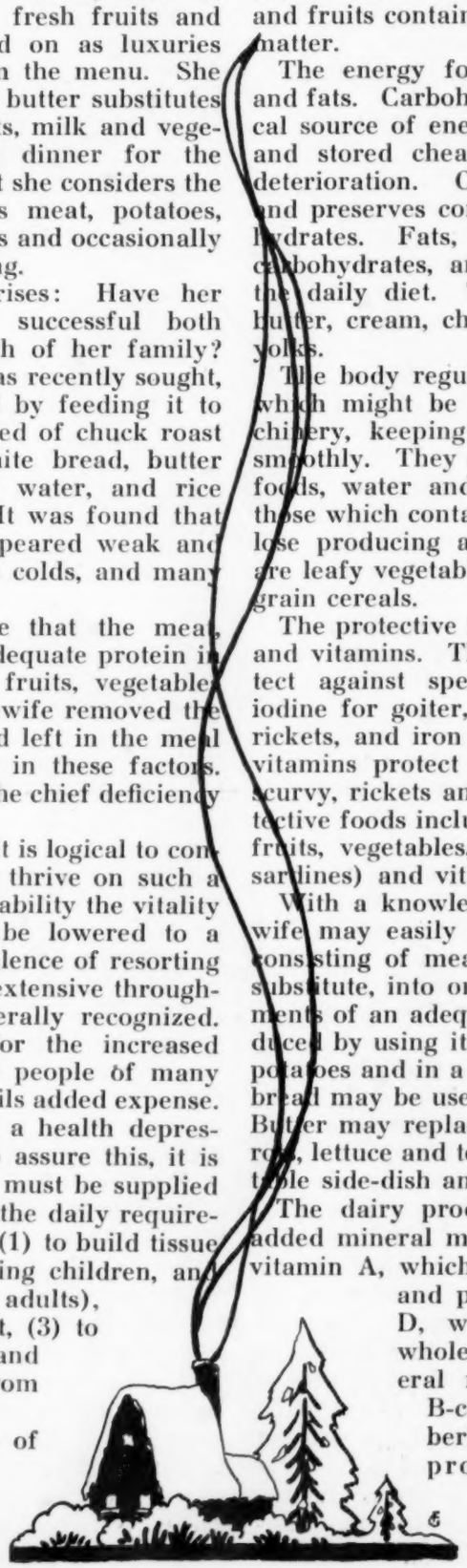
The energy foods consist of carbohydrates and fats. Carbohydrates are the most economical source of energy, as they can be produced and stored cheaply with little likelihood of deterioration. Cereal foods, potatoes, sugar and preserves contain large amounts of carbohydrates. Fats, while more expensive than carbohydrates, are used in lesser amounts in the daily diet. The foods containing fat are butter, cream, cheese, lard, fat meats and egg yolks.

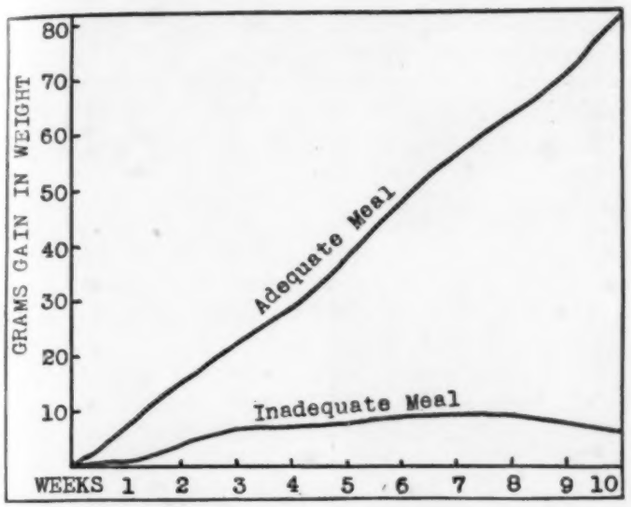
The body regulators are foods the action of which might be likened to the oiling of machinery, keeping the body processes running smoothly. They consist of mineral salts, bulky foods, water and vitamins. Bulky foods are those which contain a large percentage of cellulose producing a laxative effect. Such foods are leafy vegetables, turnips, carrots and whole grain cereals.

The protective foods are rich in mineral salts and vitamins. The mineral elements that protect against specific deficiency diseases are iodine for goiter, calcium and phosphorus for rickets, and iron and copper for anemia. The vitamins protect against ophthalmia, beriberi, scurvy, rickets and pellagra. The class of protective foods include dairy products, eggs, fresh fruits, vegetables, fish (especially salmon and sardines) and vital organs.

With a knowledge of these facts the housewife may easily modify the inadequate meal, consisting of meat, gravy, potatoes and butter substitute, into one that will meet the requirements of an adequate diet. Milk may be introduced by using it in making gravy and mashed potatoes and in a vegetable dish. Whole wheat bread may be used in place of the white bread. Butter may replace the butter substitute. Carrots, lettuce and tomatoes may furnish the vegetable side-dish and the salad.

The dairy products, milk and butter, have added mineral matter and vitamins, especially vitamin A, which protects against ophthalmia and promotes growth, and vitamin D, which prevents rickets. The whole wheat bread furnishes mineral matter, protein and vitamin B-complex, which protects against beriberi and pellegra and also promotes growth. Vitamin C prevents scurvy. The vegetables add mineral matter, bulk and vitamins.





Comparison of the average gain in weight by rats fed on an adequate American meal and by rats fed on a deficient meal.

Through these modifications, the inadequate meal has now been changed into one consisting of meat, mashed potatoes with milk, gravy made with milk, creamed carrots, whole wheat bread, butter, lettuce and tomato salad, and rice pudding.

To measure the success of the housewife's accomplishment in planning the adequate meal, it was fed to white rats. These rats grew normally, were not susceptible to disease, developed a smooth coat and were healthy. Since this diet produced such a satisfactory response in the rats, it would indicate that all the food essentials are present, and therefore it is an adequate diet.

For the purpose of comparison, the biologic responses of the rats to these two types of meals are given in the chart. The weights of all the rats were the same when the experiment started. At the end of the ten week period the rats on the inadequate diet had made a gain of only 6 Gm., while those on the modified diet had gained 83 Gm.

Rats are used almost universally in feeding experiments, as their reaction to foods has been found to be almost the same as that of human beings. Because of these reactions in rats to the two diets, it is only logical to suppose that human beings would react in the same way, losing weight and appetite and showing lowered resistance to disease on the inadequate diet, and maintaining normal weight, a good appetite and resistance to disease on the adequate diet.

The cost of the second meal may seem at first glance to be much greater than the cost of the first meal. From actual calculations, the cost of the first is 10 cents, while the second, with the additional food value, is 11 cents for each person. Even this cost may be reduced for those who raise part of their own food supply, such as fruit, vegetables, eggs and dairy products.

Therefore, from both a financial and a nutritional standpoint the housewife will materially benefit by giving thought to the proper selection and combination of food. Fortunately the most nutritious foods are not the most expensive. With a knowledge of food value and a little thought of food selection, using plenty of dairy products, eggs, fruit and vegetables, the housewife will be able to give her family an adequate diet on a limited food budget and will thus avoid the tardy but sure results of a health depression.

"Training for Athletics and Health" is a new serial, written for boys of all ages. The author, *Alfred E. Parker*, director of physical education at the Berkeley (Calif.) High School, is well known to *Hygeia* readers. Chapter I, which appears in the January issue, is entitled, "Why Build a Healthy Body?" The answers, drawn from the lives of Charles A. Lindbergh, Richard Byrd and Theodore Roosevelt, afford a thrilling inspiration to boys, young men and men to reach the goal that great men have attained.

As there is no closed season for "Fishing in the Food and Air Passages," *Drs. Chevalier Jackson and Chevalier L. Jackson* tell what to do and what not to do when foreign body accidents occur.

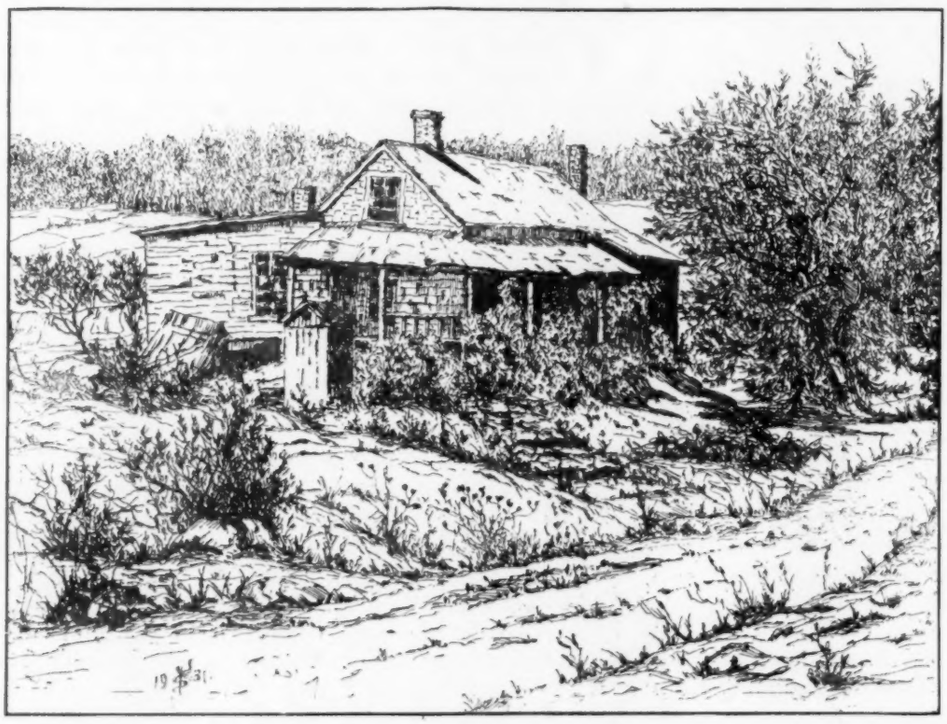
"What Is Indigestion?" *Drs. Julius Friedenwald* and *Samuel Morrison* explain not only what it is but also what it is not, and thus clear up many of the misapprehensions on this subject that befog the mind of the layman.

"Quackery in the early days of the American colonies was carried on much as it is today," says *Henrietta MacFarland Raess* in her article, "Beginnings of American Quackery," in which she describes the growth of quackery in "the paradise for quacks," and adds another proof to the axiom that there's nothing new under the sun.

"America's Front Door" shows an intimate glimpse of Ellis Island through the eyes of *Dr. M. Gertrude Slaughter*, who relates some experiences connected with her service as an examining physician on the Island.

Breathes there a woman with soul so dead that her housewifely heart will not rejoice over the hints for homemaker and hostess which *Miss E. M. Geraghty* outlines for her? In her January article on "Foods—Their Selection and Preparation," Miss Geraghty continues the discussion of food service and takes up the intriguing subject of table linens and table settings for breakfasts, luncheons, dinners and Sunday night suppers.

THE DOCTORS LOOK AT ART



By
Innis Runchey

"WE ARE NOT," said Dr. Fischer, "looking for publicity. Besides, those things are amateur, not professional; but they are good pictures, indeed, and some, in my opinion, are more than good."

We were speaking of the Sixth Annual Exhibition of Works in the Plastic and Graphic Arts by American Physicians, which was being held, under the auspices of the New York Physicians Art Club, at the Academy of Medicine in New York City. I had gone to ask Dr. Hermann Fischer, president of the New York Physicians Art Club, for the charming etching accompanying this article.

Dr. Fischer was right: interesting, and even important as the exhibition was, it was more important for its existence than for whatever good art it had to show. The significant fact about this business is that scientific men and women recognize and satisfy in this way the human need for expression, for beauty and for art. In this respect and for this reason, an art exhibit such as the one under consideration has an importance that transcends any other value.

The medical profession has for too long enthroned science as the only deity the human mind could recognize. Science is important. No one who has spent years in these studies, who therefore knows their value as no layman can, could engage in any discussion that would relegate science to any lesser place than the one it rightfully occupies. But art is also important; indeed, in its honest manifestations, it is just as important in human life. I have begun to think that for its influence on health alone, art is as valuable as science, or at least has the potentialities of great significance in this connection.

American culture in common with Anglo-Saxon culture of the nineteenth century has tended toward an excessive appreciation of the academic and the intellectual. Not that art is easy; for any faithful pursuit of any form of art, as even its amateurs know, requires just as much study, just as much intelligence and just as much devotion as any intellectual study. In America, so far as I know, medicine has heretofore been associated with art only in the literary work of Dr. Oliver Wendell Holmes and of Dr. S. Weir Mitchell. There is also the superlative accomplishment of Dr. R. Tait McKenzie of the University of Pennsylvania, who, in a specially favorable position, has carried exact scientific knowledge into forms of art that really mark the dawn of a new cultural era in America. Not since the Italian renaissance has there been so close and fruitful a union of the scientific and the artistic spirit. Dr. McKenzie leads the way to a greater art than any that America has yet known.

The work under discussion here is not the work of physicians who have gone over so com-

pletely to the gods of art. This is painting, etching and modeling that has been produced in the spirit of amateur recreation. I like it so much that I want to let others share this interesting exhibition. Still more, I wish to show how physicians are leading the way in two directions: first, these men and women have been wise enough to make a time for leisure and recreation; second, they have chosen the environment of creative activity in which to spend their leisure. It is a healthy sign, and it offers an example that others might well heed.

Turn the calendar back some months and journey with me through the picture-hung halls of the Academy of Medicine. The still life exhibit of flowers forms a large part of the exhibition. Several of the paintings show a real feeling for floral color and line. Dr. William J. Barnes of New Jersey is represented by two individual and distinctive pieces, a vase of autumn chrysanthemums and a study of a single rose. The latter, with its three shades of red, the blended background and the necessary blue beneath the vase, forms the gem of the flower exhibit. Farther along the wall is hung Dr. Barnes' third piece, an oriental figure in jade green, fawns and brown.

To digress for a moment, the other exhibitor with a unique style is Dr. Morris Manges of New York City, who, besides showing excellent line work in a pen-and-ink of black-eyed susans, has two water-colors of a thin and delicate texture. One shows Columbus Avenue at Seventy-Ninth Street. The other depicts a snow scene, with violet and blue shaded masses of snow scaling high on each side of a dark stream—all in a light silver frame. The style is at once gay and austere.

An unusual color piece of fruit in varying reds and yellows is shown by Dr. Isadore Rosen of New York City. Dr. William W. Wright of Hartford, Conn., has a bowl of zinnias backed by a stiff textured, pale green satin. The brush work on the zinnias is rather stiff; the colors are laid on thickly. Dr. Harry Wessler of New York City has a portrait of a green-gowned woman with deep flesh tones, and in the still life section he has a great blue vase of dahlias. A rather Chinese atmosphere is given in the lacquer red vase of yellow and white flowers by Dr. David Felderbaum of New York City. "Fading Tulips" by Dr. J. Babbin of New York City, a brown vase with red and white variegated tulips, shows the last moments of beauty of fading flowers.

On the far wall are large charcoal heads of men by Dr. Frank H. Netter of Bellevue Hospital. Their absolute quality of portraiture is striking. Over the entrance, Dr. Netter has also "The Old Gate" of Bellevue Hospital; he is represented also in oils by a realistic head of a young girl. Dr. Netter seems to be as happy with oils as with his black and white work.

Two etchings by Dr. Hermann Fischer catch the eye, a "New England Farmhouse" and "An Old Cottage," with fine line work and trees well massed in the composition. Nearby hangs a pencil sketch, done by Dr. David Perla of New York City, of McLeary's garden bronze "Moon Flowers," the figure of a young woman, instinct with movement and life. Directly opposite, in the case exhibit are two pencil heads of children by Dr. D. Kirshbaum of New York City, which I enjoyed.

In sculpture, several heads, figurines and plaques are on exhibit. I liked especially a bronze figure of a little dog, "My Scotty," by Dr. W. Béran Wolfe of New York City, and a man's head in bronze, "Portrait of Mr. E. K." by Dr. Samuel J. Indenbaum of New York City.

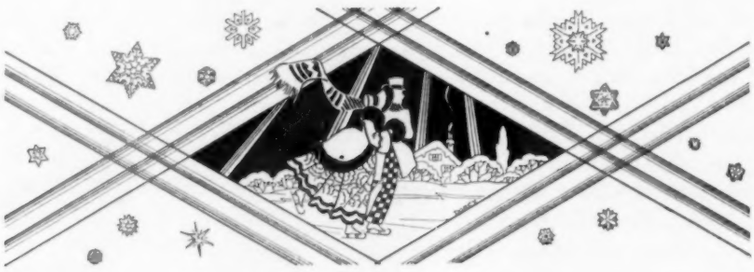
On the way out, near the door, Dr. M. Lavandera of New York City is represented by a head in oils, "A Study of Goya," with its high red flesh tints, yellowish skin, gray hair, and quality of irony.

Some of the landscapes and seascapes are excellently done and really beautiful: "Low Tide" by Dr. I. Friesner of New York City; "Nantucket Shore" and "Nantucket Dunes" by Dr. A. O. Whipple, New York City; "Rocky Island," a pine tree on a small island, silhouetted against blue sky and clouds, by Dr. Harold F. Johnson, Plainfield, N. J.; "Pine Trees of Patchogue," a row of pine trees on a high and windy ridge, by Dr. Henry N. Moeller of New

York City, and "Landscape" by Dr. G. F. Thornhill of New York City, showing a pine woods with the rising moon beyond. Other interesting pieces are "The Fish Dock" by Dr. Henry A. Bancel of New York City, showing a heavy and realistic treatment which is most pleasant; "Landscape" by Dr. Conrad K. Gale of New York City, a line of trees against the lake water with sunlight filtering through the branches on the pathway; "Going to Market in Jamaica, B. W. I." by Dr. G. Starke of Tupper Lake, N. Y., a gay water-color with Negro figures and a heavily laden donkey; a quiet French square in grays and greens, "Place de l'Abbaye," by Dr. Kenneth Taylor, New York City, and "Grand Canyon" by Dr. Ethel Harlo Lynn of San Francisco. This list is only a partial catalog of the work.

Altogether, the exhibition is most interesting, not merely because it is the work of amateurs who in their business spend themselves in the grim struggle of keeping death in his place but because it is good and because it emphasizes life and the love of life. It also shows a trend in cultural existence, the trend toward personal satisfaction in individual expression in art, which is more important for happiness than is any other activity that I know; if this is not true of all people, it is increasingly so of many, and of other professions and occupations. I appreciate the fact that those who have to deal so much with that death-in-life, which is disease, here renew their allegiance to the standards of life, their real leader.

I shall not go further into the aspect of health through expression, although I myself believe that most of the unhappiness of life—and so, much of the disease that afflicts us—is caused, directly or indirectly, by persons not getting the satisfaction of "saying what they think about it"; such expression, of course, creates art. There might also be emphasized the importance of training in the realization of beauty, of those esthetic values which are so difficult to define but which, biologically, at least are related to health. I like to think that the physicians in this group, representing various parts of the country, in showing this example of fine use of leisure and a technic of recreation are setting a pattern that may more widely be adopted.



Foods—Their Selection and Preparation

Continued from page 1084

mendous presses acting on the proper dies. The spinning process is one of the most interesting. The rough form of the article, the blank, is put on a lathe. The spinner then, with especially designed steel tools, molds the blank on a "chuck," pressing it down on the chuck and skilfully bringing the metal to the desired shape. Spinning is a skilled trade and requires workmen of a high intelligence. The various parts, such as spouts, handles or ornaments, are made separately and soldered to the article.

Throughout the various processes the metal must be made malleable by annealing in electric furnaces and made clean by being dipped from time to time in acid baths. These visits to the furnace and to the bath are repeated from time to time until the pot or dish is ready for silver-plating.

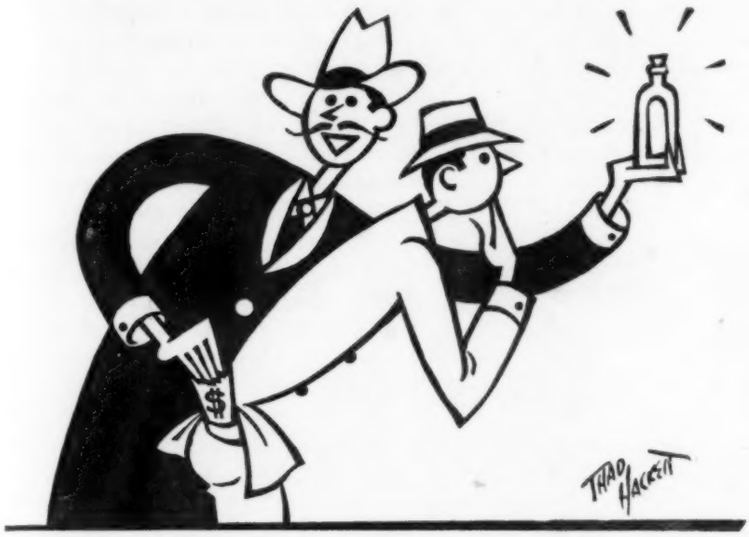
Naturally the processes vary considerably with the nature of the article, some classes of goods requiring operations that are not necessary in the case of others. The bodies of some pieces may be stamped out completely, while others come from the presses in halves that must be soldered together. But even when the soldering process is employed, the article in its final form is a complete piece so skilfully made that it is impossible to tell where the two parts are joined.

The pot or dish then goes to the sand buffer where, with the aid of a rapidly revolving wheel, the hardly visible irregularities of the metal are removed, after which the piece is carefully polished preparatory to plating. Before it is ready for this, however, it is thoroughly cleansed in a number of solutions so that it may be absolutely clean and the silver deposit may thus be uniform.

[NOTE.—Part 2 of Miss Geraghty's article on food service will appear in the January issue.]

Are You a HOCUS-POCUS Victim?

By
J. C. FUNK



The "patent medicine" faker manages to extract a fat sum of money each year from thousands of pockets.

A LARGE TENT, a first class show and a most persuasive gentleman represent the background for the dispensing of a miracle compound the efficacy of which, judging by the eloquent claims made for it, is really no less than astounding. The audience is lulled into a purchasing mood by the hypnotic voice of the "patent medicine" faker, 100 bottles of this omnipotent concoction are quickly exchanged for as many dollars—and the day's business is done. Thus, playing the South in winter and the North in summer, this clever man, in spite of the keen competition of the talkies and the automobile, manages to extract a fat sum of money each year from thousands of pockets because of the child-like faith and gullibility of the average man or woman who is ill or half ill, or who imagines for no good reason at all that normal health is not being enjoyed.

The situation would perhaps be amusing but for the lamentable fact that a proportion of the victims so cling to the statements alluringly made and as persuasively, though inferentially, published on the bottle's label, that they needlessly suffer or die in consequence. Therein lies the pity of it. As a matter of fact, that is the pity of all this amazing hocus-pocus which, with glib tongues, glamorous promises and glittering labels, imposes itself on the confidence of suffering humanity. Delayed cures, or what is more unfortunate, premature funerals in thousands of cases inevitably result.

Such consequences, however, do not disturb the sublime tranquillity of the "professors," who immodestly admit that through their wonderful discovery they have outstripped the scientific and hard working research men backed by the millions of the philanthropists.

Now, the peculiar thing is that the modern faker is little changed either in method or in manner from his forerunner of a hundred years ago. While incantations, amulets and charms have been discarded, practically all the rest of it survives.

The onward rush of scientific achievement in medicine, chemistry, bacteriology, sanitation and disease prevention in no wise dampens the brazen effrontery of this seductive gentry. To them the significant fact remains that some of the then incurable and stubborn diseases are as yet in these classes; and, inasmuch as hundreds of thousands of people suffer from them or imagine that they do so, the harvest remains as ripe for plucking as in the days of yore, with the added advantages that accrue from increased population, easy communication and richer purses.

However, the "vacant lot" artist after all represents but a small minority of that tremendous horde of unethical gentlemen who prey on the public. Men who can successfully play on mass psychology require the characteristics of actual ability, vigorous boldness and unique personality; and comparatively few possess them.

To this group, however, belong certain food faddists who visit towns, advertise free lectures and make their appeal to that class of persons who are sufficiently educated to think they are quite above the average in mentality and therefore imagine that they are capable of understanding matters beyond the level of the ordinary person. With brilliant tongue, handsome face and an accomplished stage manner, these "nutrition experts" sell themselves at two open meetings and "sell" hundreds of persons to

the tune of $10 each for the remaining and "essential" talks. The net result is that the unmistakably clever fellows enrich themselves and develop an additional market for their "priceless health foods." Moreover, they have filled the unreasoning heads of their converts with half-true theories which, to say the least, are frequently dangerous.

A less bold and talented group is represented by the breed that hides behind advertisements and stage settings. These unscrupulous men who possess a medical degree, honestly or dishonestly obtained, occupy elaborately furnished offices in the downtown section. Appropriately planted behind a large desk and surrounded with appliances, mainly electrical, they make a calamitous diagnosis, the while peeping over their shell-rimmed glasses and sticking their thumbs in the armpits of their spotlessly white coats.

Fakes and fads must be thrown on the ash heap, where they rightfully belong.

One is informed that though the examination, as advertised, is absolutely free, the cure is quite otherwise. Cancer, heart conditions, Bright's disease, syphilis and tuberculosis are one and the same to savants of this type. No matter how advanced the case, indeed if there is no case, a series of treatment is all that is necessary, and the cost is but $500 on the instalment plan. One will then be entirely well again. It is as simple as all that!

And speaking of examinations, a significant feature attaches to them in offices of this character. One may have received a clean bill of health ten minutes previously from an expert physician, yet the x-ray vision of these sublimated pseudo-scientists will promptly discover a terrible ailment which is speedily carrying one to an untimely grave. In this manner, thousands of Americans who are quite well or nearly so, but for their thinking otherwise, through diabolic suggestion are thus made altogether miserable. Suicide in this connection is sometimes the immediate result of the falsehoods thus expressed for the purpose of gouging money out of the victims. Again, through these unethical practitioners, many others, still in the curable stages of a disease, owing to delayed treatment meekly lay down their lives in a pitiable attempt to save them.

The third act of this drama of credulity shifts once again. Gone are the footlights. Even the seduction of a stage set is entirely lacking. A small group of men sit around a table. Having purchased a formula for a few hundred dollars, they are developing a national campaign for a great restorative. The cost of this newspaper offensive will run into hundreds of thousands of dollars. It is quickly subscribed. And in this way a new boon to suffering humanity is launched on a waiting world.

The new discovery possesses colossal power. It is actually amazing in its adaptability to widely divergent conditions. So it comes to pass that a million dollars are taken out of the pockets of as many United States citizens and placed in the accounts of the few shrewd business men whose cheaply acquired formula contains but little that could in curative effect even remotely approach the claims made for it. Once more, the dollar bill and the all trusting faith of ailing human beings have generated a misplaced confidence, with incurable diseases and deaths resulting by the thousands.

To all this humbug must be added the crimes of the advertising oculists, the "painless" dentists, the beauty surgeons, the "vitality belt" purveyors and the many unscientific cults, whose major interest in patients is to get money out of them, an activity in which they preeminently succeed.

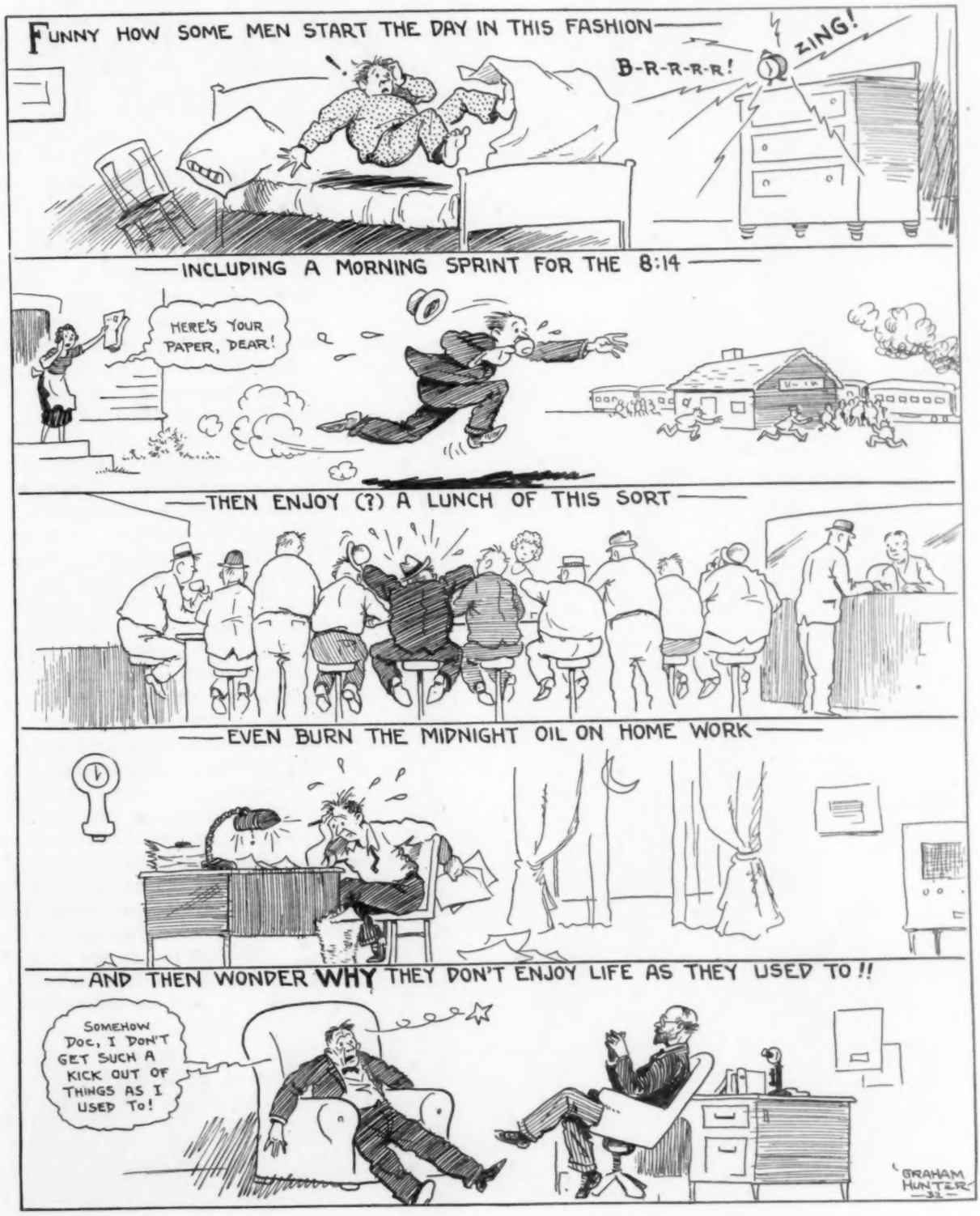
But even this is not the whole story. People by the millions are being educated in the press through so-called health talks and advertisements of the untold advantages to well being of this and that particular kind of food. In short, through quacks, quack advertising, cults, pathies and food and tobacco exploitations, the American citizen of today is so hammered at on the subject of health that he develops either a complex or a logical callousness to the whole subject. It can, therefore, be safely said that misapplied and misstated facts on health are a real menace to the American public today.

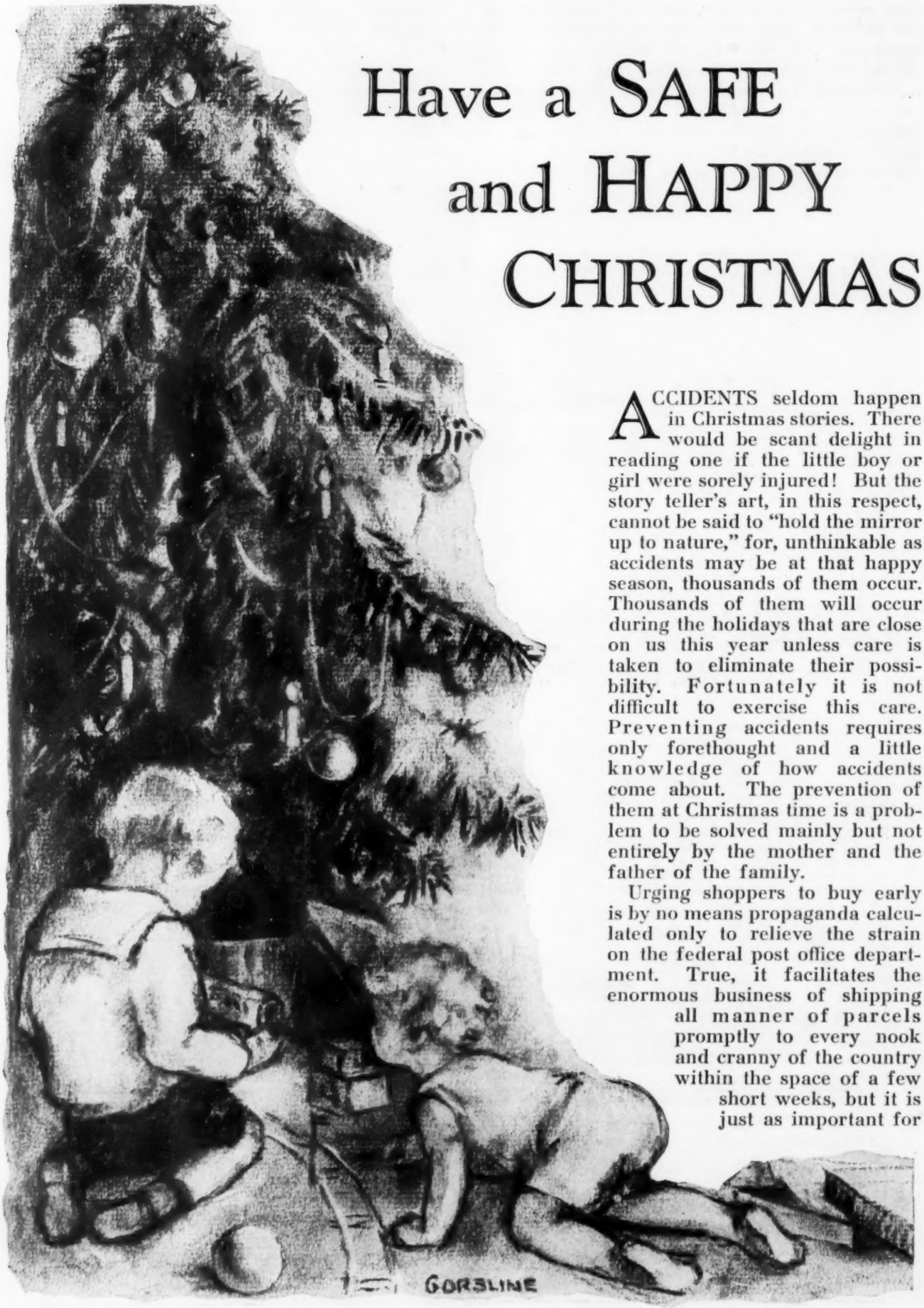
It must be admitted that the government has accomplished splendid work in driving many frauds to cover. In this fight it has been admirably led by the investigations of the American Medical Association and its Council on Pharmacy and Chemistry. Insurance companies also have consistently spread facts tending to place in their proper light the bunkum back of all this chicanery of healing. Nevertheless, the thing continues to thrive.

It would therefore appear that many more Americans must be educated to the outstanding value of the periodic health examination as the really great discoverer of baffling diseases in a

stage when curative and corrective measures are still possible. Moreover, they must somehow be trained to rely only on the healing art in its ethical expressions to cure their maladies. Nature cults, autohemic therapy, astral healing, crompathy, diet fads and all the rest of it, including the alleged cures and testimonials of neurotics, must be thrown on the ash heap, where they rightfully belong.

Certainly, fools we will always have with us, but further to retard the foolishness of such persons, which is now so generally and energetically applied to health fakes and fakers, is a most worthy object indeed. Remarkable, even unbelievable, headway would be made in this campaign if every one would seriously ask himself the question, "Am I a hocus-pocus victim?" Then act accordingly. How about it?


FUNNY HOW SOME MEN START THE DAY IN THIS FASHION
B-R-R-R-R-R!
ZING!
—INCLUDING A MORNING SPRINT FOR THE 8:14—
HERE'S YOUR PAPER, DEAR!
—THEN ENJOY (?) A LUNCH OF THIS SORT—
—EVEN BURN THE MIDNIGHT OIL ON HOME WORK—
—AND THEN WONDER WHY THEY DON'T ENJOY LIFE AS THEY USED TO!!
SOMEHOW DOC, I DON'T GET SUCH A KICK OUT OF THINGS AS I USED TO!
GRAHAM HUNTER 32



Have a SAFE and HAPPY CHRISTMAS

ACCIDENTS seldom happen in Christmas stories. There would be scant delight in reading one if the little boy or girl were sorely injured! But the story teller's art, in this respect, cannot be said to "hold the mirror up to nature," for, unthinkable as accidents may be at that happy season, thousands of them occur. Thousands of them will occur during the holidays that are close on us this year unless care is taken to eliminate their possibility. Fortunately it is not difficult to exercise this care. Preventing accidents requires only forethought and a little knowledge of how accidents come about. The prevention of them at Christmas time is a problem to be solved mainly but not entirely by the mother and the father of the family.

Urging shoppers to buy early is by no means propaganda calculated only to relieve the strain on the federal post office department. True, it facilitates the enormous business of shipping all manner of parcels promptly to every nook and cranny of the country within the space of a few short weeks, but it is just as important for

the shoppers themselves. The combination of harried and hurried last-minute shoppers on foot and harried and hurried shoppers in their cars all crowded together on the icy downtown streets between December 20 and 25 is conducive to serious traffic mishaps. Christmas shopping can and should be a pleasant occupation pursued at leisure and in safety. Gifts, which are intended to make somebody happy, must be chosen thoughtfully. Get around to your shopping early this season. Start now!

By CURTIS BILLINGS

Buy safe toys. To do this, one must inspect each prospective purchase carefully. That soft and chubby teddy bear may appear to be just the thing for little Bobby, but be careful! Do the eyes consist of colored buttons sewn or wired fast in place, or are they merely the ornamental heads of long pins stuck into Teddy's face? You had better be exceedingly curious about the construction of the toy, for Bobby is sure to go over it painstakingly, and if the eyes are the heads of pins, he will find it out. Long pins in the possession of small children cause many grievous misfortunes. Keen circumspection must be used also in the choice of other toys. Grave mishaps occur from electric trains that are improperly wired; tin horns sometimes have sharp edges capable of inflicting deep cuts, and the small whistles in the poorly constructed toys have too often been sucked into the lungs of children. The wise shopper leaves the store which exhibits unsafe toys and goes next door to find safe teddy bears, trains and horns.

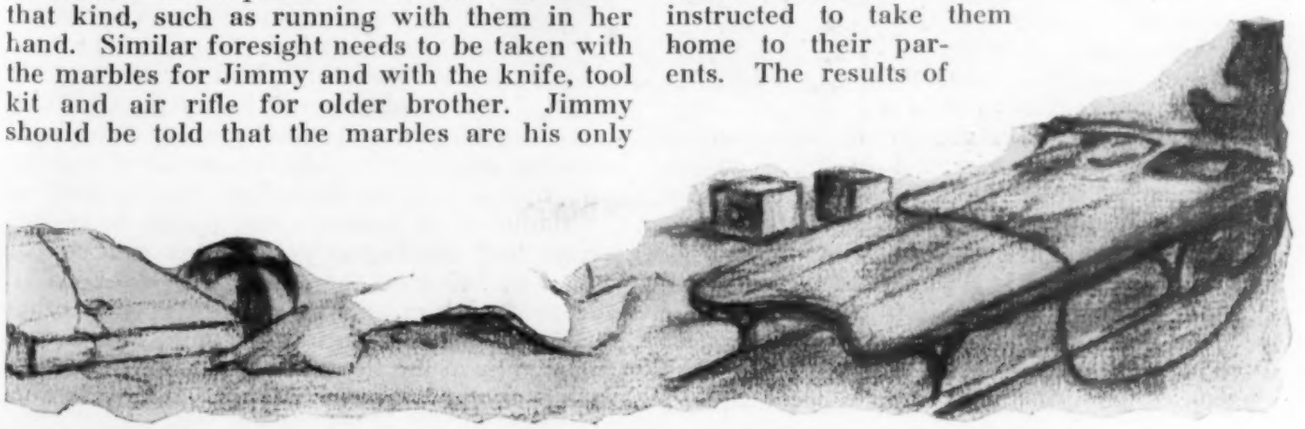
While cheaply built playthings are inherently dangerous to the little boy or girl who receives them, the inappropriate toy may present hazards just as great. If a ball is decided on for Peter, aged 1½ years, and a pair of scissors for Jane, aged 5 years, be sure that the ball is so big that Peter cannot possibly get it into his mouth and that the scissors are so blunt-pointed that Jane cannot prick herself with them. The gift of the scissors, by the way, will be a better gift if with them you give some time for teaching Jane how to use them properly and cautioning her about unsafe practices with instruments of that kind, such as running with them in her hand. Similar foresight needs to be taken with the marbles for Jimmy and with the knife, tool kit and air rifle for older brother. Jimmy should be told that the marbles are his only so long as he keeps them away from young Peter, who might swallow them; and older brother must be taught the safe use of his knife and tools. Instruct him always to cut away from the body, regardless of what tool he is using, so that in case the tool slips he will not be injured.

The air rifle, misused, is a truly dangerous weapon. It is questionable whether any boy living in a city should have one, because it would be next to impossible for him to use it without jeopardizing somebody. According to the National Society for the Prevention of Blindness, air rifles are a frequent cause of blindness in children. Be sure that tricycles, bicycles, wagons and scooters are suitable not only from the point of view of the age of the child who is to receive them but also with regard to the place available for him to use them. To the caution "buy safe toys" must be added the important phrase "and appropriate toys."

Fire is perhaps the greatest single hazard with which the average family has to contend during Christmas time. Too many happy celebrations end in tragedy. An analysis of the causes of 245 Christmas fires yielded the following statistics:

Christmas-tree fires caused by smoking and carelessness with matches	104
Candles on Christmas-trees	69
Short circuits and defective wiring	62
Electrical toys, defective wiring	6
Candles as decorations other than on trees	4
Total	245

It would seem that the exercise of ordinary care and common sense would eliminate fires from such causes as these. Indeed, the city of Dayton, Ohio, prevented all such fires for several consecutive years by the simple expedient of an educational campaign which reached every home that had a Christmas-tree. The local safety council attached cards to each of the 20,000 trees sold in the city each year, listing a half dozen or more important cautions regarding the hazards connected with Christmas-trees. More printed messages were distributed to all school children, who were instructed to take them home to their parents. The results of



these modest campaigns repaid their cost a thousand-fold. Here are the cautions as they were set forth:

"Avoid lighted candles in the decoration of the tree.

"Use carefully wired electric lights.

"Place the tree a safe distance from the stove or fireplace.

"Use metal tinsel for trim and mica or flake asbestos for imitation snow.

"Cotton trimmings and cotton whiskers for Santa Claus are very dangerous. Santa suits and whiskers should be made resistant to fire.

"Never leave a lighted Christmas-tree unguarded.

"Do not place the tree where it will obstruct a room exit.

"Keep candles and open lights away from window curtains, paper wreaths and Christmas bells.

"Remove tree from the house before it becomes dry."

The first of these cautions needs little comment. It is almost suicidal to burn candles on a Christmas-tree. Indeed, this was the cause of the terrible fire at Babbs Switch, Okla., in 1924, one of the worst holiday disasters in the recent history of the country.

The foregoing analysis of Christmas fires shows that not all electrical decorations are safe. Bulbs of 1 firefly candle-power are the strongest that should be used on trees indoors. They generate little heat. It is poor economy ever to buy cheap electrical equipment. If your decorations prove to be too much of a load for your household circuit and cause a fuse to be melted out, make sure that it is replaced by a new fuse and not by a penny or a nail. The fuse is the safety valve of the electrical system, put there to protect the wiring between the walls and to prevent fires. If there is any difficulty in hooking up the decorations without burning out a fuse, call in a competent electrician.

To use gobs of cotton for artificial snow is to court conflagration. Crushed mica or asbestos wool are available in most places; they look just as real as cotton, and they will not burn in a blast furnace. The same precautions hold for Santa's make-up. He should not wear cotton whiskers or a suit trimmed in fluffy cotton. Common wool would be better because it is not so flammable, but better still is a substance that cannot burn. If unburnable substances are not available where you live, you can treat ordinary cotton in a way to make it fairly safe. There are two methods, both of which are recommended by competent authorities. The first consists of buying at any drug store 4 ounces of phosphate of ammonia and dissolving it in 1 quart of water. The cotton or cloth should be soaked in this mixture, wrung out and allowed to dry. To restore the original fluffiness of the cotton, comb it after it has dried. Another solution consists of 2 ounces of carbonate of soda, 2 ounces of ammonia carbonate and 2 ounces of boric acid mixed into 5 gallons of water. After this solution has been brought to a boiling point, it may be sprayed over the materials that need fireproofing.

Care must be taken in decorating the rest of the house. Never put natural foliage, paper wreaths or Christmas bells around ordinary electric light bulbs. These bulbs generate too much heat. Also beware of celluloid ornaments. If it is the custom of the family to burn candles in the windows on Christmas eve, use electric ones if possible. If tallow candles are used, shield them well and tie the curtains and draperies back away from them.

In England there is a superstition that to keep a Christmas-tree in the house after the first of the new year is bad luck. The number of fires in this country would be materially decreased if the superstition prevailed on this side of the Atlantic as well. Fire caused by a carelessly tossed cigaret stump or a short circuit has less chance of becoming dangerous if it has only green wood on which to feed. A properly erected Christmas-tree is set in a bucket of water. Thus it draws moisture up into itself and not only remains resistant to fire longer but also retains its beauty.

Fire is the outstanding danger in Christmas celebrations of a public nature. Frequently people are even less careful here than in their own homes. Since the Babbs Switch case presents innumerable common circumstances, it would be well to give a brief description of it here.

Families from the whole countryside gathered at the small wooden school house at Babbs Switch for their annual celebration. About 150 men, women and children were in the audience. At 8 o'clock, Santa Claus appeared before the big Christmas-tree and began to distribute presents and toys. Everything went smoothly and according to plan until Santa reached for a gift which was tied to one of the upper branches of the tree. As he stretched out his arm, the cotton on his sleeve was ignited by the flame of a candle. Not particularly disturbed but wishing to get the toy quickly, he jerked it, bringing the whole tree over on its side toward him. More candles ignited other parts of his flimsy cotton costume, and flames began to burn the decorations on the tree. The audience, not alarmed as yet, shouted direc-

tions; but Santa had nothing with which to extinguish the fire, which was now shooting through his clothing. It did not occur to him to roll on the floor or to snatch a coat from the rack along the wall and wrap himself up in it to smother the flames. Suddenly his attention was diverted to the tree, one branch of which was now in full blaze. He snatched a small chair and, apparently intending to break off this branch, hurled it at the tree. The chair struck a glass bowl lamp, which immediately exploded, shooting burning oil in every direction.

Then the panic began. People darted for the door, the only exit, and the fleetest escaped to safety. No sooner were they outside, however, than they bethought themselves of their families and friends still within. Frenzied with fear, they attempted to fight their way back into the building to bring their relatives out. Thus the door was effectually blocked. The Santa Claus, the teacher of the school and thirty-five others, mostly children, perished.

The many neglected hazards that made this holocaust possible are commonly found at similar celebrations in schools, churches, hospitals and stores even today. Santa's suit was of thin, untreated cotton. It was trimmed in cotton batting, and his whiskers and even his eyebrows were of the same fluffy stuff. Candles were burning on the tree. Despite these dangers the disaster would probably have been averted if a fire extinguisher or even a few buckets of water had been provided for such a contingency. Without these materials for extinguishment the accident would probably have been of minor consequence if Santa had been reminded before the celebration began that if his clothing was ignited he should wrap a coat or rug around himself and roll on the floor. The least consciousness of the danger of fire would have been enough to allay his own panic so that he would not have cast the fatal chair. There is still another sad "if" concerning this fire. If a simple announcement had been made before the program that in case of fire everybody must stand and walk—not run—for the door, the awful destruction would have been at least minimized.

There is little use in recounting the unpleasant details of calamities such as this unless a lesson can be drawn from them. If a lesson is drawn, perhaps those thirty-seven lives may be the means of saving hundreds.

The National Safety Council recommends that persons in charge of such affairs appoint a special safety and fire committee. It would be the duty of the committee to acquaint themselves with all exits in the building, to see that they are unlocked and easy to open, to make sure that passageways to them are unobstructed, to see that exit lights are burning, and to ascertain the location of the nearest fire-alarm box or telephone. The committee would provide a fire extinguisher or a plentiful supply of water and, if smoking was permitted at all, sufficient ash trays would be furnished in which the smokers could dispose of matches and stumps. The committee, moreover, would see that in decorating the tree and in dressing the Santa Claus the same precautions were observed as have been recommended for the home.

There are a few miscellaneous fire hazards which must not be omitted. Whether at home or at the public celebration, trees should not be placed near an open grate fire, and extreme care must be used in the showing of motion picture films. Every hearth fire should be enclosed in a fine-mesh screen, preferably one that fits snugly against the fireplace at the top as well as at the sides. Frequently embers pop over the top of ordinary screens. Unless the hall is equipped with a standard projection room and manned by professional motion picture operators, nonflammable film only should be used. Flammable film should never be shown in the home.

While too much attention to fires could scarcely be given, the dangers of falls at Christmas time should not be overlooked. A substantial step-ladder is needed to erect and to decorate a tree properly. A twisted ankle or sprained hip caused by a fall from a wobbly chair or weak box will not make the holidays any merrier. Following the distribution of the presents the room is usually a veritable shambles, with the floor, chairs and table tops littered with boxes, wrapping paper, excelsior, strings and toys. Clean up post-haste. Falls are particularly dangerous to elderly people, and how easy it is to sidestep suddenly to avoid crushing a lamp or doll left on the floor—only to put one's foot down on a rubber ball or roller skate!

Next to the living-rooms the kitchen is probably the most festive part of the house on Christmas day, especially immediately before dinner. A huge roast is in the oven, and the handles of pots and pan bristle on the stove top. The odors emanating to other parts of the house are quite sure to draw any happy and hungry family to the cook's domain. There are a few precautions which ought to be taken if the children are allowed in the kitchen. See that they do not attempt to lift pans and kettles containing hot food and liquids. Do not let the handles of the pots protrude over the edge of the stove; they are too easily knocked off. Remember that everybody is likely to be excited at Christmas, and more than everyday caution is re-

quired for safety. Because it is a holiday, do not relax your vigilance; as this is a time of additional carelessness and danger, it is well to be constantly on the alert.

Accidents of the Christmas holidays are not confined to the house or the celebration hall. The opportunities for grave misadventures to occur in connection with winter sports and especially with winter automobile driving are numerous. Fortunately, reasonable care will eliminate them.

There are, for example, snowballs—and snowballs! The child who misses out in the great American sport of throwing snowballs is losing an opportunity for a lot of pleasant reminiscences after he grows up, to say the least. This sport, however, like others has its dangers. Every winter, reports reach the National Safety Council of persons who have been injured, blinded or even killed by a snowball. Children should be cautioned against pressing the snowballs between their hands until they become veritable balls of solid ice. Care must be taken also to avoid packing a nail, stone or piece of ice into a ball. One of these hard missiles, caught squarely on the temple, in the face or on the back of the neck, may have serious consequences. Never throw a snowball at a person who is wearing glasses. The shattered lens may be crushed into his eye.

Skating and skiing are perhaps the kings of winter sports. Children in every city in the northern portion of the country should have safe places to participate in these healthful, body-building pastimes. For skiing, remember never to start down a strange hill before inspecting the bottom. For skating, keep in mind the useful jingle:

One inch, keep off!
Two inches, one may.
Three inches, small groups.
Four inches, okay!

Full information on the construction of ski jumps and of safe rinks for skating is available from the National Recreation Association.

Coasting is an exceedingly popular sport, and the shiny new Christmas sled must be given its initial tryout immediately; but if the hill is a city street, it should be set apart for this purpose and properly guarded. Hitching on the back of automobiles with a sled is perilous.

Especially during the holiday rush, when streets are likely to be slippery, when hurrying pedestrians are numerous and the visibility is none too good, the wise and prudent automobile driver takes his time. The short twilight hours when everybody is a bit exhausted after a day of work or of shopping are particularly treacherous. In storms, keep the eyes open and the wind-shield wiper working. Use chains on slippery streets, but do not trust them too far. Remember not to jam on the brakes if the machine goes into a skid. Apply them gently if at all, and turn the front wheels in the direction of the skid; that is, if the rear wheels are sliding to the right, steer to the right; if they skid left, turn left. Do not disengage the clutch. Be sure that the wheels of the car are turning.

Nonoperating accidents take their toll too. Accumulations of ice and snow on running boards account for many painful falls. Either sand the ice or melt it. Beware of carbon monoxide gas poisoning in the garage. Never run the engine in the garage unless the doors or windows are wide open. Beware of matches, cigars and cigarets near the filler nozzle when taking on a tankful of gasoline or filling the radiator with an antifreeze solution.

Whether one is shopping for toys, decorating a Christmas-tree, planning a celebration, participating in outdoor sports or driving, the Christmas holidays of the family will be happy and safe if every one will take a little time to be careful.

If I Keep My Health

"You call yourself a successful business man, don't you?"

By
W. W. BAUER

"WELL," I said to my friend Bill as I walked into the office of his small but busy manufacturing plant, "you look like a funeral en route somewhere to happen."

"And why not?" he answered, without even a smile.

"Business bad?"

"No," was his unexpected reply, "surprisingly good, in fact. Only I wish there was a law so a fellow could shoot all pessimists—especially insurance agents."

"Why the combination?" I asked him. "I thought the insurance business was based on optimism."

"Maybe the business is," he replied gloomily, "but they employ only confirmed, postgraduate pessimists—take it from me."

"You speak as if you'd had experience."

"You said it, boy. I just got loose from one of them. Wasted half my day for me first, though."

"Tell me about it," I prompted.

Bill was always a good talker, and it was apparent that he had something on his mind.

"I call 'em pessimists," he began, "on account of the long tale they always have to tell about what happens to people who don't have their policies. All the happy endings seem to depend on having their particular brand of insurance. What are you laughing at?"

"I just thought of something," I answered hastily.

"Quit thinking" he replied irritably. "It doesn't fit your style. You're not used to it. Well, anyway, this fellow tried to sell me some insurance, and I told him I couldn't afford any and wouldn't need any more than I have if I could afford it, and anyway I was busy. Then he started to offer me all kinds of inducements. Those birds will go to any lengths to get business. Even offered me a free physical examination every year—my own choice of doctors—oh, I don't remember all of it. It didn't interest me."

"Your shop seems to be busy," I remarked. I had been watching through the glass partition of his office.

"Yes," he answered. "I'm surprised myself, sometimes, the way a lot of others are complaining. But I can't kick. Production is on a paying basis, and sales aren't bad at all. Watching it as closely as I do keeps the overhead down, and we can make a little profit even when things aren't booming."

"And still I find you steeped in gloom."

"Well, maybe I'm tired," he answered. "This one-man business stuff keeps a fellow on the jump, you know. It isn't as bad as it was when I handled everything alone, now that I've got a sales and advertising man, but it's a stiff grind yet." He smiled a little and then went on. "If I can stand the pace for five years more, I can slow up a bit."

"You know," I said to him, "I've been watching that long line of

little machines that are going full speed out there next to the windows."

"What's that got to do with the subject?" he demanded.

"Nothing, perhaps. I was just interested."

"Those things are the heart of the business," he replied with the first real show of animation he had exhibited since I came in.

"Your patent?"

"You know they are."

"And I suppose you treat them as if they were crown jewels?"

"I'll say so," he replied. "They're rather complicated, and the parts they turn out are the key to the whole manufacturing process. If they quit, the shop quits."

"I'd say you were sitting pretty," I said. "You own your building, too, don't you?"

"Oh, yes."

"Carry insurance on it?"

"Are you going to start that stuff, too?" he demanded, looking at me as though my ignorance deserved nothing but pity. "Of course I do," he added rather sharply.

"Keep your clothes on," I reassured him. "I was only thinking of what you said a little while ago about lasting five years longer and sitting pretty. It's an attractive speculation."

"What do you mean, speculation?" he demanded.

"Well," I answered, "you yourself said 'if.' That doesn't sound as though you were very sure of it."

"That's just a manner of speaking," he replied.

"Of course, but many a truth is spoken in jest. I couldn't help but wonder, since you mentioned the importance of keeping your health for another five years, if you applied as much judgment to that as to your business."

"I'll say I do. I carry every kind of insurance there is: life insurance—three kinds, accident insurance, health insurance and income insurance. What more can a fellow do?"

"You do seem to have covered the ground."

"But all that wouldn't do me a bit of good," he said. "The insurance will keep me and my family all right, but I'd have to quit the business and sit around and be useless—and I think I'd rather be dead."

"Exactly," I said.

"Look here," was his reply, "you've been sitting there politely agreeing with everything I say, and at the same time your expression has said plainer than words that you don't believe a word of it. Now suppose you come clean, or get out of here and quit wasting my time—you big hyena."

By such terms of endearment as this, Bill and I knew that each held the other in high regard. I decided to come clean.

"All right," I said. "Like it or not, here goes. You call yourself a successful business man, don't you? Calm down—I'll do the talking! You've got a growing little business here, own your own building, have everything protected with insurance, and your product and your machinery covered 6 inches deep with patents, but what about the heart of the whole business—you, the alleged boss, the so-called smart business man, the brains—if any—of the whole works? What about you?"

"Good night," Bill protested, "haven't I got every kind of insurance anybody ever thought of?"

"No," I snapped, "you haven't."

"Well, don't be mysterious—spill it."

"Time enough for that when I get ready," I replied. "Here you sit, saying to yourself, and to anybody who will listen, 'if I keep my health.' What are you doing to see that you do keep it?"

He looked puzzled. Then he smiled.

"Say, fella," he answered, "I've been kidded by experts."

"And by nobody any more than by yourself, big boy," I said.

"What more can I do? I don't drink, I don't smoke too much, I eat plenty of good food, behave myself, and watch my p's and q's when I drive a car."

"If anything happens to one of those machines, the whole shop stops."

"That's great," I said; then I pointed out into the shop. "Look at that battery of machines buzzing along out there. Your own invention!"

"Right."

"And when they go wrong, you turn a flock of mechanics loose on them?"

"Not much," he snapped. "We don't wait for them to go wrong. If anything happens to one of those machines, the whole shop stops. Every Saturday morning they get an overhauling."

"Smart idea," I retorted.

"Don't be sarcastic. What do you mean?"

"I just mean that if those machines quit, you suffer a delay in production. Even if one should go hay-wire, you could still build another."

"Sure," was his response, "but why take a chance?"

"Why take a chance on yourself," I replied sharply. "If you quit, the shop not only stops, but it stays stopped. Being a one-man concern, the business goes to pot without you. And then all your insurance will do is to keep you and your family out of the poor-house. It won't keep you on the job and keep your pet business going, will it?"

"Why, no," he admitted, "it won't."

"Well?"

"What are you driving at?"

"It wasn't so long ago," I answered, "that I was doing the same thing you are. I'd make a lot of plans for the future, but every one of them was hung on the same big 'if.' I didn't like the idea of that, but it took my wife to show me the way out. Women have a lot of sense sometimes about things like that."

"Go on," Bill growled.

"She had been reading about health inventories, or something like that. I figured it was the bunk, but being a polite and peaceful sort of a cuss. . . ."

"Trimmings," said Bill, "do not intrigue me. Get to the point."

"I agreed to try it out. I went to my doctor and put the proposition squarely up to him. I asked him whether there was anything to do in the way of precautions to protect one's health."

Bill guffawed.

"I tried that stuff," he said between laughs. "I did the same thing to my doctor, and what did I get? A slap on the back, an invitation not to worry—and he said to call him if I wasn't feeling right."

"Well," I answered, "no wonder you laugh. But my doctor didn't hand me any of that old line. Not much. He explained to me what a health inventory is. Simple enough, too, and sensible. Ought to appeal to anybody with a businesslike mind—like yours."

"Marmalade!"

"All fooling aside, Bill," I answered, "I'm sold on that idea. It isn't necessary to wait for something to go wrong with you any more than you wait for your machinery to break down before you give it care. Why not give yourself a break—a rest and a complete change and a little fun? If your factory needs an inventory once a year—why not yourself?"

"I begin to get you," Bill replied. "It does sound like sense, and in fact I had the same idea myself."

"You—or Molly?"

"Dry up," said Bill, "and blow away. You bore me. As I was saying, I had the same idea, but when I put it up to my doctor and he laughed at me, what was I to think?"

"I've tried it out for two years," I answered, "and it's worth while. I've had a physical examination every six months since then. The first time I got some mighty good advice about foolish habits that would be sure to get me into trouble if I didn't quit them."

"Nothing wrong with my habits."

"Wait and see," I retorted. "That's what I thought about mine. Too much of the wrong kind of food, not enough exercise, abusing my eyes, and so on."

"Poor old cripple," Bill murmured.

"Laugh today," I answered. "You may be next. Anyway, the second and third times I went through with a clean slate. And you can believe me it was a lot of satisfaction. Just like a brand new supply of pep."

"Maybe you're right," Bill admitted, "but you sure do know how to waste a lot of a fellow's time. Get out of here now, and let me work."

The next time I saw Bill was several months later, for we had both been busy and out of the city. He looked a great deal better.

"How's business?" I asked, edging toward the door.

"Terrible," he answered, and grinned.

"You're cheerful enough about it."

"Why not," he said. "Weeping won't bring in any orders."

"You're looking good," I ventured to remark.

"Rub it in," he retorted promptly. "Rub it in because I took your advice. 'Told-you-so-Tommy' will now favor us with a rendition of his favorite refrain."

"Have I said a word?"

"Huh," said Bill, in huge disgust. "Did you need to say a word? I could tell by the glitter in your eye. Did you go to your doctor, Bill? Yes, Tom, I did. What did he tell you, Bill? None of your business, Tom."

"Of course he found nothing the matter with you?" I hazarded.

"Not a thing in the world!"

"Yeah?"

"Yeah!"

"Then why do I find you looking at least 15 pounds lighter than the last time I saw you?"

"Handsomer, my boy, that's all. A mere matter of appearance. Besides, the clothes were getting too tight, and I couldn't afford new ones."

"That's the same reason you took a fishing trip in the fall, isn't it?"

"Well . . ."

"You're using some sense about yourself as well as your business. Come on now, own up."

"What's it to you?"

"Not a thing in the world. Only I'd like to have been there when your doctor told you that your waist-line would have to be cut down if you didn't want your life-line cut short, and your hygiene of life was rotten and your health habits were terrible."

"Aw," said my friend Bill, "you give me a pain. I'll stand you a lunch if you'll lay off that line."

SLEEPING

H. Armstrong Roberts

By
Sophia Yarnall

"YOU CAN SAY what you like," said a friend of mine, "your children are just naturally 'sleepers'; my child is not. And I don't know anything else to do. After all, I can't hold her eyes shut."

"No, you can't," I agreed, but I was piqued and curious for I refuse to believe that any child under 10 should not sleep twelve hours at night and at least one hour during the day.

My friend and I had been talking about our children's naps after lunch, and my friend had complained that she could never get her 8 year old daughter to sleep. She was lucky, she said, if Barbara did not get out of bed and run around the room. Finally she had given up trying to make the child sleep and had given her a book to read in order to keep her quiet.

Barbara was a great friend of my Alice and spent many afternoons at our house, playing with Alice and Bobbie; so I asked my friend to let me try an experiment with her. I was curious to see whether there was not some way of making a nap attractive to her, especially as her mother was trying in every other conceivable way to make her form healthful habits.

"Certainly, go ahead and try anything you can think of," said my friend, "but I warn you, from the start, that you are doomed to failure because Barbara is such a nervous, high-strung child, one simply cannot make her rest."

I suppressed my desire to suggest that lack of sleep might be the cause rather than the effect of being nervous and high strung, for the parents of nervous children always seem to believe that their children are of a race apart and quite superior to the average healthy young animal who knows nothing of such things. Instead I asked how soon Barbara might be allowed to come home every day from school with Alice and stay until the late afternoon. It was agreed that I should have two weeks in which to try out my theories; if they did not work in that time, I should acknowledge myself a failure.

The next day at lunch Barbara played into my hands.

"Mrs. Cook," she said, "Why do Bobbie and Alice have to take a nap? I never sleep in the daytime. I'm too big to."

So that was it. Some one had teased her perhaps or had told her that it was beneath the dignity of her 8 years. I thought quickly and yawned ostentatiously.

"Isn't that funny," I said, "you know I never feel too old to take a nap after lunch. I can't wait for Bobbie and Alice to get into their rooms so that I can go in mine and go to sleep. I get so tired after working all morning that it's my favorite time of day." I yawned again with enthusiasm.

It was easy to see that for Barbara bed and sleep had not been pictured as something to be coveted and sought. To her they were the boring appendages of childhood, of which she wished to be rid as quickly as possible. I could see that the whole process would have to be

dramatized and made attractive and "grown up." To my own children, a nap after lunch was as inevitable and accepted a procedure as brushing their teeth in the morning. Barbara, however, had to be converted.

As we arose from the table, I suppressed another yawn. Would she never catch it? Yes, she had. The muscles of her jaw contracted, and she rubbed her eyes.

"I wish we didn't have to lie down," she said. "Do we have to have a nap? You know I never sleep in the daytime."

"That's all right," I answered. "Just get nice and comfortable on the guest-room bed. You don't have to sleep. Only I'm afraid Bobbie and Alice and I'll have to, we're so tired."

Barbara seemed reconciled to her fate at last, but whether she fell asleep finally out of boredom or because the stigma of "babyishness" had been removed from a nap I do not know. I do know, however, that the first day she slept for ten minutes or so, the second for a few more, and, at the end of a week, I had to wake her up to go out to play, after an hour and a half in bed!

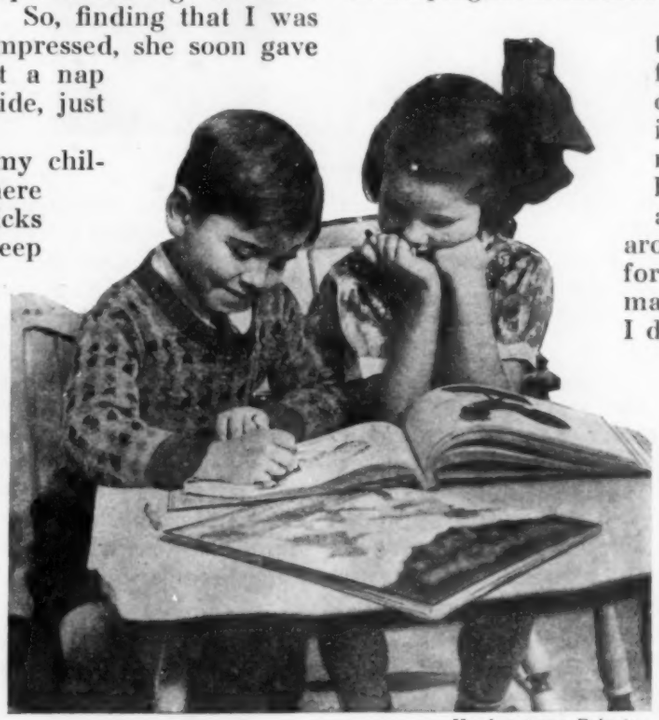
For a while she persisted in the assertion that she had not really slept, but had only dozed off for a few minutes. I accepted her word for it as though I had not peeped in through the door at her a dozen times. So, finding that I was neither annoyed nor impressed, she soon gave up even talking about a nap and took it in her stride, just as my children did.

I discovered when my children were little that there were a few simple tricks about having them sleep either in the daytime or at night. Every practical-minded doctor and psychiatrist will say that healthy babies should sleep through any amount of noise in the house, if one accustoms them to it. But mine did not always adapt themselves so easily to a dinner party or strange voices and laughter downstairs.

I puzzled about it for a long time, and gradually I found out that, once they were asleep, nothing would disturb them; but if they started out the night wrong, there would be no peace for them or any one else in the house. Several factors were, and still are, necessary to produce the right atmosphere for them.

In the first place, I am sure that a definite schedule and routine are as essential in this as in every other phase of a child's life. Children should eat, play, work, go outdoors and be put to bed as automatically as clockwork. I found that if I varied the routine by half an hour they were already too tired, when they got into bed, to sleep at once; and the longer they stayed awake, the crosser they got, until a really bad night was facing them and me.

Secondly, when there was a great deal of excitement after their supper they never would settle down until they had thrashed around for an interminable period. So I learned to taper off the violent activities of the day to quieter amusement. No visitors were allowed when the children were babies, and no "rough-housing" is tolerated now that they are older. After 6 o'clock, a picture book or a game of backgammon, a quiet story or a bout with the stamp album are excellent soporifics. They keep the children happy and busy without exciting them or causing them to become physically exhausted. I am convinced, for instance, that the reason children take so long to go to sleep in summer is not nearly so much the maligned "daylight saving time" as the fact that parents let them race about on the lawn or in the garden instead of keeping them amused sitting still.



H. Armstrong Roberts

After 6 o'clock, books are excellent soporifics.

The third thing essential to a good night's rest for children is, in my opinion, that the house is quiet for about fifteen minutes after they go to bed. I do not mean that all the adults should go around on tiptoe, waiting for the moment when they may break loose again, but I do mean a certain slowing up of activity in and around the children's rooms. There should be no tidying of clothes and toys after the children have climbed into bed, but a hasty exit from the room should be made so that they will not be distracted. If one has a small house, as we have, there is not much that is not "in and around the children's rooms," but even so it is easy enough to accustom oneself not to make too much noise for just a little while after the door is shut on them. The all pervading radio can be hushed for fifteen minutes and friends can be invited to come to dinner

(Continued on page 1145)

HOMES for BABIES; BABIES for HOMES

CRADLES, as they go, are common enough in the Chicago suburb of Evanston, Ill. It has for its size an unusually large population of babies. "The Cradle" is another and a different matter; it is an institution and a symbol, known nationally and even internationally.

The new science of pediatrics knows The Cradle for its technic in the care of babies, for it is one that has been studied and followed far and wide. The technic of The Cradle reduces baby mortality to its lowest terms, and its manner of feeding young infants is one that may be used by mothers in their own homes. In its way The Cradle is a laboratory in which causes and effects in the care of young babies are studied and their results put into practice available to mothers everywhere.

The Cradle stands, too, as the symbol of an idea tying up with some of the tenderest and at the same time the strongest relations of human kind—the relations of parents to their offspring and to public opinion and prejudice.

That a baby a few days old may be taken from a mother unwed or not fully competent to minister to her child, may be placed for a brief time under the care of pediatricians and skilled nurses and then be given a fair start in life in the home of foster-parents denied a child of their own—that is the promise and the fulfilment of The Cradle.

Day by day and year by year it is demonstrating that the best the medical profession has to offer in care for the youngest infants is not for the rich alone. In its record of nine years, it shows that once the baby is certified to be free from disease and has a fair endowment of personal attractiveness, homes without number are awaiting it. Indeed, with what may be called the competition of orphan asylums and home-finding organizations, The Cradle is in the singular position of having a waiting list of more than 2,000, with an annual supply of approximately 300 babies to fill the vacancies. For the year 1931, its record was as follows:

Babies present at beginning of year	19
Received during the year	271
Placed in accredited homes for adoption	237
Returned to parent or guardian	13
Transferred to other institutions	4
Died	3
Present at close of year	33

Two significant social facts stand out in the foregoing tabulation: 1. The death rate of babies under 3 months old, the age at which the child is most susceptible to disease, was a

trifle more than 1 per cent. 2. Figuring the average cost of upkeep for The Cradle at $50,000 a year, the expense of preparing a baby to be adopted by foster-parents committed to the idea of rearing the child as their own may be estimated at slightly more than $200. Considering that the future of the child and his potential value in the social structure are determined by his early environment and home background, the cost of $200 appears not to be a heavy charge on society in general.

It should be borne in mind that the adoption of a baby from The Cradle by foster-parents is a process of selection on both sides. Before the baby is received into The Cradle, his mother is questioned and her statements are verified in some degree. On the other hand, prospective foster-parents are required to satisfy The Cradle's director that they are able to give the baby a suitable home. The plan works both ways.

The fact that 237 babies are placed in homes in which they are wanted in a single year gives emphasis to the statement by Mrs. William B. Walrath, founder and director of The Cradle, that there exists a definite and insistent demand from childless couples for infants reared for the first few weeks under controlled conditions. At the time this article is written, an American couple is en route from Japan to Evanston to take a child from The Cradle for adoption. During the preceding week, babies were sent to South Africa and to Honolulu. The record number of adoptions from The Cradle into one family—not, however, all at one time—is five. Another family took a set of triplets. In nine years The Cradle has sent more than 1,800 babies out into the world. Another conclusion of Mrs. Walrath from her years of home finding is this: When a married couple goes for eight or ten years for economic reasons without having children, the urge for parenthood often becomes so strong that it breaks all bounds, and the decision to adopt a child is made. For it is the belief of Mrs. Walrath that parenthood is a spiritual as well as a physical relation and the child of adoption takes the place of the child of the blood in the degree of love and care lavished on it. "I believe," she said, "that parenthood is a stewardship, not an ownership. If the unmarried or deserted mother is unable to give the child the care and the chance in the world that he deserves, she should give him up. If she is thrown on the world to support herself, she cannot give the attention to the baby's health in the first critical weeks that it should have. It will be a losing struggle. It is the duty of society through some accredited agency to step in and give the child the opportunity in life which he ought to have.

By

A. S. Chapman

"The babies should not be victims of the broken law," she continued. "Society holds out open arms to the adopted baby when he loses his identity in an accepted home. I believe, too, that every child has a higher potentiality than we would think of crediting to him. We plant a nasturtium seed in the ground. We know it will produce a nasturtium, but we cannot tell whether the plant will have a red or a yellow flower. It is the same with the child. We do not know what potentialities may be in that life, with the proper environment."

On the moot question of whether an adopted child should know that the foster-parents are not his actual parents, she says to those who adopt children: "We hope you will bring up your child knowing he is adopted. Later, when he is old enough to know what it means, will come opportunities to explain that no baby came to you in the usual way and that you wanted one so much that you came to us, knowing we could give you a baby who for some reason had been deprived of his birthright."

Another outstanding fact in the experience of The Cradle is the willingness of prospective foster-parents to accept Mrs. Walrath's judgment without an investigation of their own. Health is a first consideration, and the regimen of The Cradle for the time the baby is kept there is accepted as a sufficient guarantee. The average time that babies spend at The Cradle before they are sent to the waiting homes is forty days.

Prospective foster-parents are not informed of the names of the child's par-

ents, married or unmarried, but are given only general information. Quite contrary to the usual practice in adopting children, Mrs. Walrath does not go into an elaborate investigation of the baby's ancestry. Her judgments appear to be founded largely on intuition and an understanding of mother psychology. "I question the mother," she continued, "and I usually know whether she is telling the truth. I ask whether the father is light or dark, tall or short, his occupation, education and so on. Many foster-parents-to-be place stress on the mother's qualifications. Sometimes I take her for an intelligence test to one of the professors at Northwestern University. You must bear in mind that many of the couples seeking babies are college graduates. So are many of the mothers.

"I try to place babies in homes where they will fit in and I always follow racial distinctions: babies of Jewish parentage in Jewish homes, babies from homes of the Latin races in homes of the same blood strain and those from parents of the northern races, like the Scandinavian, in homes of the same class. If I find a mother of low mentality, I do not send her child to an educated home."

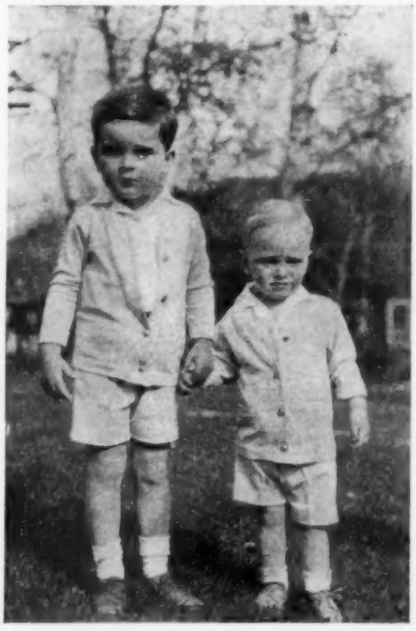
In the delicate matter of fitting babies into homes where they will be acceptable and will be assured of an enduring welcome, the director of The Cradle has developed a technic of her own. Apparently the education, occupation and the color of the hair and eyes of the child's parents would not generally be considered important, but Mrs. Walrath has learned otherwise. For it is her aim as nearly as possible to make the appearance of the child match that of the foster parents, so that comment because of dissimilarity may be avoided. She does not place a dark-eyed baby with blue-eyed foster parents, or one of coarse features with people of finely chiseled features. With the wide range of choice afforded by more than 2,000 homes, it is not difficult to make the matching problem work out. Indeed, sometimes the baby's own mother and his foster mother are said to look so much alike that they would be taken for twin sisters.

Officially The Cradle had its beginning in 1923. Before that time Mrs. Walrath had learned by experience that one of her own children could be brought up with safety on an artificial diet. The success of the experiment led to her recommending a baby to a couple who wanted one for adoption. One case led to another till she was finding homes for baby after baby. The sympathetic quality that gains for her the confidence of the girl gone astray is balanced by abilities of an executive character. At first the babies were cared for in the Evanston hospital till The Cradle Society was able to provide quarters of its own.

Even now the society has no large imposing building to call its own. The babies are kept in three houses close together and partly connected. Each of the houses has twelve bed units. Each baby is fully isolated from the others. Babies are received on the recommendation of doctors, hospitals and social service organizations.

During the years The Cradle has been in existence, the attending physicians and nurses have developed a technic of their own which may be of value to mothers in feeding their babies. The physicians on the staff give their services without charge. On an average, from six to nine graduate nurses and fourteen students are in attendance.

A visit to The Cradle at the babies' feeding time is full of interest and of suggestions for home nursing. The graduate nurse in charge wears a mask. The bottles have been kept in the electric refrigerator. Wearing sterilized rubber gloves, the nurse in charge changes the corks for sterilized nipples, covering each nipple with a sterile gauze dressing, and places the bottles in a pan of warm water. Then a nurse-maid carries the bottle with the nipple still covered to the baby's bedside stand. Putting on a gown, she takes the baby from his bed and holds him in her lap in an upright position while she places the nipple in his mouth, with care not to let her fingers get near the nipple or the baby's mouth. The upright position is used because a baby can be so easily "drowned" while he is lying down. If at any time the nipple becomes clogged the graduate nurse with her sterile rubber gloves is called to change it.



A graduate nurse is always present in the diet kitchen where the formulas are prepared. Sterile covers are placed on the tables. Corks, bottles and other supplies have been autoclaved. The nipples are boiled for three minutes and the water is boiled for ten minutes. A graduate nurse is in charge of the breast milk station, for all babies are not fed artificially.

Masks are worn to prevent the spread of colds during the cold season. At first the masks were made of a coarse quality of gauze. Now handkerchief linen is used for the purpose.

When the babies' clothes are changed, nurses soak their hands in a basin of disinfectant solution, take off their gowns and wash their hands in the solution and again in soap and water. With the use of a technic such as this, it is certain that the baby will never take in intestinal organisms through his mouth. It is a technic recommended for nursing homes or other places in which the danger exists of transferring infections from one baby to another. Extreme care of this type gives a clean bill of health.

In 1927 an outbreak of enteritis raised The Cradle death rate from a four year average of 4.8 to 12.1 per cent. Working with the staff, Drs. George and Gladys Dick traced the cause of the enteritis to powdered milk used in preparing the babies' foods, with the conclusion that only foods which are fresh or which may be boiled should be permitted. To prevent a recurrence of such an epidemic, basins containing the disinfectant solution and hand towels were placed in each unit. That precaution and the method of feeding previously described brought the epidemic under control. The method has been widely followed elsewhere.

The Cradle has no endowment and is dependent on subscriptions for its support. Among those whose names are enrolled are Mrs. Charles G. Dawes, wife of the former Vice President of the United States, and Gene Tunney, ex-world boxing champion. The latter happened to be a visitor to The Cradle one day and, apparently with the idea of building up a reserve of healthy babies from which another world champion might come, he became a regular financial contributor to the organization. Mrs. Dawes goes on record in favor of child adoption by having two adopted daughters of her own.

When Dorothy Was a Little Girl

By
CHARLES S. WHITING

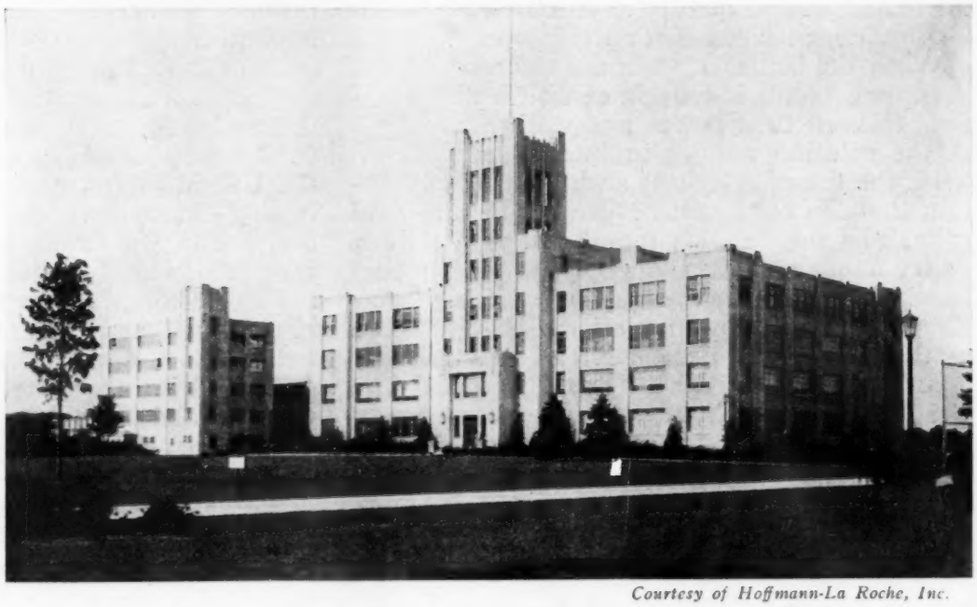
When Dorothy was a little girl,
And shadows used to creep,
Each night she'd always suck her thumb
Till she was sound asleep.

Her mother used to scold her then,
Tie rags around it, too,
And father said, "It's not the thing
A lady ought to do."

But now that she's a great big girl—
'Most three years and a half—
She doesn't do it any more,
For fear that folks will laugh.

How Some of Our Medicines Are Made

By
JOSEPH
CREAMER



Courtesy of Hoffmann-La Roche, Inc.

We enter a building which closely resembles a library or museum.

POP . . . POP. . . ! The conductor applies a taper to the gas jets above our heads as we careen into Chicago in one of the old Pullmans before the discovery of electricity. Through the cordlike little tubes which feed these jets, a gas is running that in a few years will appease the sear of the surgeon's scalpel and the agony of the broken limb—ethylene.

Whom can one thank? Working away in the dim recesses of the university and pharmaceutic laboratories throughout the country are chemists delving into the reason—the why—behind the thousand and one elements that throng space. These are the men to thank, these and the manufacturers, who lash the dream of the laboratory into reality through the medium of flashing belts and coughing pistons, through the throbbing roar of dynamos and the purring pulse of steam and brass.

Take a trip with me through one of these massive manufacturing laboratories that supply the hundreds of remedies and drugs that crowd the druggist's shelves. Let us step behind the scenes for a few minutes and gaze on this modern alchemy.

The car swerves from the drive into the silent, green hill country, up a grass-bordered roadway to the doors of a half white, half gray building that closely resembles a library or museum. The dancing shadows of the trees fall back into the glistening patterns of the massive windows. Let us enter. Everything is quiet, but afar we may detect the dull throb of machinery and the pulsing hum of flying wheels. The guide beckons, and we follow.

Our first visit is to the shop—what a mass of belts, wheels, buckets and, wonder of wonders, inverted coffee pots—chemical percolators!

The guide points to an immaculate corner. Here two men are bent over a sparkling machine that shimmers in the late noon sun. They wear smocks of white that fall to their toes.

"They're preparing belladonna," the guide explains. "You know, that's the black, sticky substance that's on the back of the felt pad of a belladonna plaster. This," he continues, picking up a large bundle of dry leaves, "is the crude drug. It is first placed in the grinding mill, where it is mashed to a powder, after which it is put into those large percolators that you noticed as we entered. The belladonna is placed in the percolators after it has been macerated. The large pinwheel affair at the bottom of this tub is the mangler. The crude drug is placed in here, and 75 per cent pure alcohol is added. Then the belladonna is placed in the percolators; it remains there for a while and is then drawn off through the faucets on the bottom. Nearly all the extracts are made in this way, although some may have to rest longer than others."

The guide glances at his watch. "We had better be moving on to the pill room," he urges. We follow him down the scoured boards. All about is the heavy odor of drugs. In answer to

an inquiry as to the possible unhealthiness of the atmosphere, he replies, "No, the air is changed every five minutes."

"The making of the pill," the guide resumes, "is the most difficult and at the same time one of the most interesting processes in the pharmaceutic industry. A pill the size of a hatpin head may contain anywhere from three to a dozen or more individual ingredients within its small body. It's quite a complex little thing. This department is known as the mass section." We look about. The room closely resembles a pastry shop. Here are lined up against the wall massive containers of licorice, dextrose, sugar and tinctures that contribute to the making of the pill's "body."

"The body," continues our guide, "bears a close similarity to the human skeleton. Nature provides the bony framework whereon she may hang the lungs, heart and kidneys in appropriate lodging quarters. The pill also must have a skeleton on which to hang its various elements."

The master of ceremonies that introduces the pill to its body is garbed in a dress suit of rubber and metal. He rolls and rerolls the pill and its body until he presents to the startled gaze of the host a large cake of substance much resembling putty. This is the mass.

The guide has started speaking again. He perceives that the process is becoming a little too technical for us. "To the right are two large automatic machines. The mass is taken from the shelf and placed into one of these," he explains, indicating one of the automatic machines which is spinning at a tremendous rate. "The mass is rolled into long cylinders and these in turn are cut into segments, which are rolled into pipes of proper diameter between the bands of rubber you see here." The guide points to two stumpy rubber rollers revolving in opposite directions.

Suddenly, there is a piercing frightening clang. "That's nothing," our guide assures us. "It is only the pipes dropping to the plates. Now watch closely. These plates will cut the cylinders into smaller ovals—and there are the pills." And there they are—thousands of tiny little marbles cantering around the metal cistern.

"Approximately 800,000 of these little pills jump from this machine every day," the guide proudly exclaims, with the glimmer of a fond father in his eye.

"But there yet remains an important procedure," he resumes, "and that's curing. A pill must be cured or it will not digest properly." He moves on to a battery of immaculate porcelain trays. Here the pills are placed and sprayed with warm air. This extracts all the moisture from the pill without harming the shape.

"And here's the tray for particular pill takers. Do you like your pills in the raw?" he inquires.

"Well, not exactly," we reply.

"Then, this machine is for you."

As far as the eye can see is strewn a battery of drums, brothers to the one on which the guide is resting his arm. The operator steps back and lets the guide explain the intricacies of the operation. Five or six pans are revolving rapidly near his hip.

"These," shouts the guide above the hum of the drums and drone of the belts, "are the coating drums in which the pills are sprayed with a confection from the taps overhead." We glance up and notice large elbowed pipes that carry the coating down into the drums.

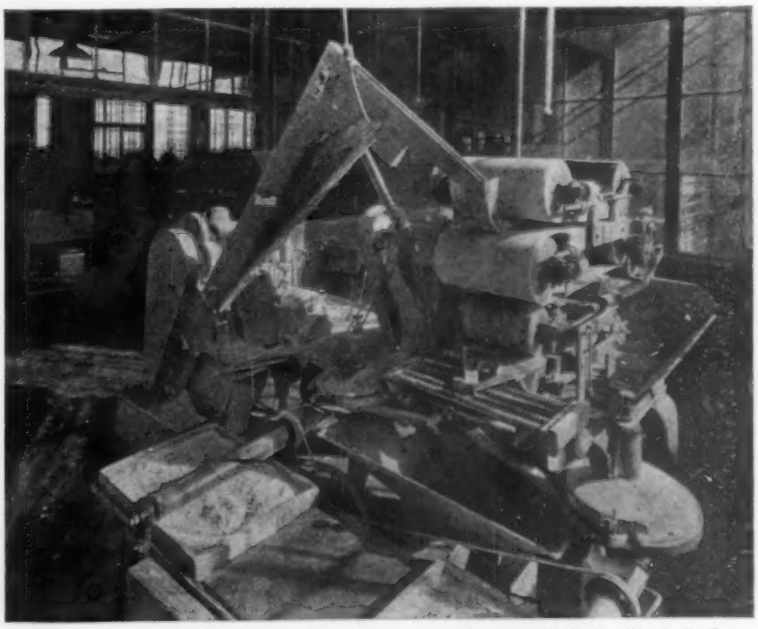
"All right, Harry?" he asks the operator, who nods assent. When the guide opens a spigot, a fine haze of sticky brown syrup mists into the drum as it revolves, bathing it in sweetness. "That's to make the pills crunchy and brown," the guide proudly claims, "but great care must be taken that the pill doesn't acquire too thick a coating. It must be just right! Let's step over to the polishing drums." He leads us to another battery at the opposite wall.

"Now feel the inside of one," he invites. After placing a finger gingerly within the gaping mouth, we proudly exclaim in all innocence, "Why, it's coated with wax."

"Certainly, how do you expect the little pills to be as glossy as a mirror if they aren't waxed?"

In these drums the little pills fly round and round after they have been coated. Then they emerge in their Sunday clothes, sparkling and hard.

With time growing short the guide suggests a dash over to the vaccine farm. We follow



Courtesy of Parke, Davis & Co.

Almost human—this machine rolls, cuts and shapes the pills.

him through carefully tended meadows to a long, low, barnlike structure. Windows extend down its sides in straight rows. Here are housed the cattle.

Some confusion exists in the minds of the average man and woman as to the terms vaccine and serum. Briefly, the difference is this: A vaccine is a prophylactic agent which is prepared from bacteria or virus and most commonly used before the onset of any disease, whereas a serum is prepared from the blood of an immunized animal and most commonly used to combat a condition already established and quietly working away in the organs or blood of the body.

Let us hear what the guide has to say in the matter of the preparation of these important products.

"After the cattle have rested from their trip to the farm and have become used to their new surroundings, they are brought into the operating room. That is," he laughs, "one or two are brought in—not the entire meadowful. You'll notice that every instrument and article in this room is aseptic and the attendants' clothing and the furniture are immaculately white. When an animal is brought into the operating room, the attendants sling him up on the table and then the veterinary gets to work. First the abdomen is cleansed of all hair by shaving. Then the virus of cowpox, let us say, is inoculated within this field, and the animal is led back to its stall in the building that you are now facing.

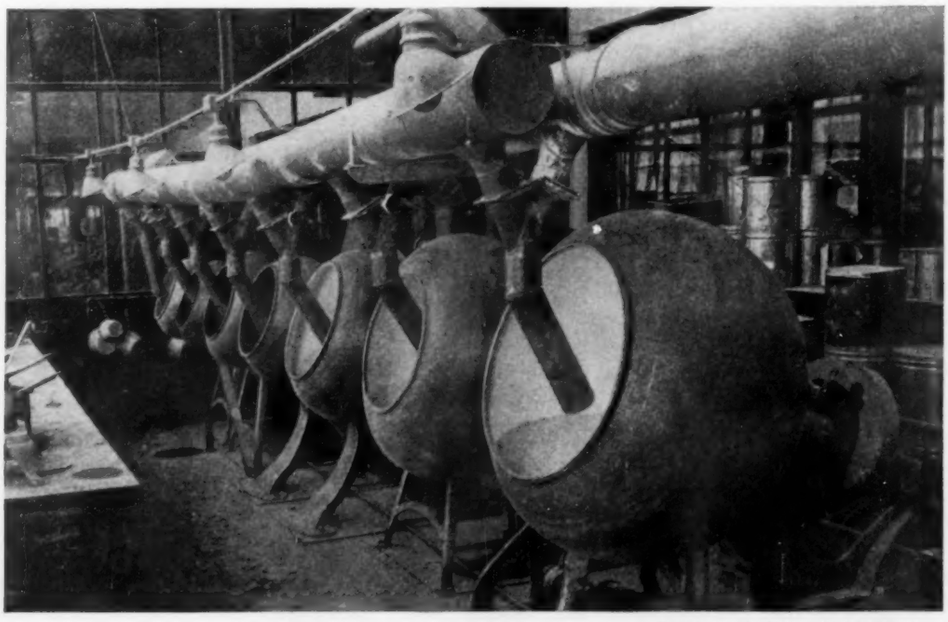
"When the virus has taken effect and a 'case' is imminent, the animal is again brought into the operating room and the lymph or deposit is removed. A bacteriologist then examines it for its purity. When the quality has been established it is mixed with the proper ingredients, including glycerin and a preservative, and is introduced into little glass tubes. When the animal has served its purpose it is turned out to pasture. The vaccine, which is then labeled, may be sent throughout the country on brief notice."

The guide steps into a narrow, sparely furnished room. This, also, is entirely in white as are the young women seated at the glass-topped tables. Their hands are working beneath the glass canopy, rapidly filling sterilized antitoxin syringes through thin rubber tubes leading from large jars on the shelf above. This section, the guide explains, is devoted to the preparation of antitetanic or lockjaw serum.

"You could scarcely believe," says our guide, "what a vast quantity of medicine is manufactured each year. These figures from a recent U. S. Government Report will give you some idea of the materials used." He handed us a printed slip on which the following items appeared:

"The value of medicines manufactured in the United States yearly totals $500,000,000. . . . The 1930 imports of raw materials amounted to 114,934,000 pounds. . . . During the last year $3,046,000 worth of licorice root alone was used in the manufacture of various medicines."

It is late afternoon as we drive off through the low, green-clad hills toward the city from this house of wonders. We recall the guide's words as he stood in the massive archway—"You'll have to come back, gentlemen. You haven't seen half the sights yet."



Courtesy of Abbott Laboratories

Palatable pills for particular people emerge from the coating drums.

"Hestie's got consumption," Joe said gruffly.

"Goranteed"

A Short Story

By LUCRETIA PENNY

UNCLE SAMPSON was the last member of the Tracy clan to join the group on his nephew's porch. He was the only one who needed an introduction to Miss Jackson.

"This here's the county nurse, Uncle Samp," Mrs. Joe Tracy told him, adding patiently, "me and Joe's got a new worry."

"Hestie's got consumption," Joe said gruffly.

His wife put up a reddened hand as if to shield herself from the dread word. "No Joe! Miss Jackson never said that."

"Not callin' it by its right name don't make it no better, Lou," her husband replied. "The doctors says them pictures shows that somethin' ails Hestie's lungs."

Uncle Sampson's pale blue eyes were puzzled. "What pictures?" he inquired.

"The x-ray pictures, Mr. Tracy," Miss Jackson answered. "We had chest examinations of all the family because Mrs. Long had been ill here."

"Aggie Long warn't a mite of kin to us Tracys," Uncle Sampson protested. "Consumption never run in the Tracy blood."

"Miss Jackson says it don't run in nobody's family, Uncle Samp; it starts from germs same as smallpox does. That's why Hestie ought to be sleepin' by herself and havin' sep'rate dishes from the others and all like that." Mrs. Bracken was speaking with shy determination.

Miss Jackson was grateful for this bit of evidence that her work in the county had not been wholly wasted. Perhaps Mrs. Bracken, who was Joe Tracy's cousin, was the logical person to influence the family. At any rate there was nothing to do now but let them talk the subject out. When they had finished she would again suggest the routine advised by the specialist who had examined Hester. Miss Jackson had long ago accepted the fact that immediate results could not be expected from her work. She could understand that, seen through the Tracy family's eyes, what seemed to her the primary principles of hygiene could appear radical and unreasonable.

"What gets me so disheartened," Joe Tracy sighed, "is them there doctors at the court house not wantin' to gorantee nothin'. If I could get Hestie a goranteed consumption cuore I'd sell the shirt off my back to buy it."

Uncle Sampson let down his tilted chair and leaned forward. "There's a fellow name of Winters. . . ."

Miss Jackson had expected that some one would mention the patent medicine salesman

who was canvassing the county in celebration of the fact that the Tomato Association had mailed out the season's first checks. That afternoon on her way to the Tracy's she had seen Mr. Winters' car turning off into the Trappers' Hollow road and had considered following to have a talk with him but had decided that it would be a waste of time. The county medical society had found him airily unresponsive and had been told that his business was "too lucrative to be abandoned for altruistic motives." He had boasted that he expected to leave a bottle of his liniment on every mantel in the county and was taking orders for a half dozen other remedies which he would deliver later—probably in time, Miss Jackson thought resentfully, to share in the returns from the tobacco crop.

". . . honey, linseed oil and whisky, Joe?" Uncle Sampson's pale eyes brightened.

"What was you goin' to say, Uncle Samp?"

Nodding enthusiastically, he answered, "Roxie's right, Joe. It don't matter what I was 'bout to say. You can't beat them old-time remedies. If we can make out to get the ingreedyunts. . . ."

"They ain't nothin' I wouldn't make out to get if it was goranteed to cuore," Joe answered grimly, "but I don't know as I ever heard Grandpaw say he'd knowed that to be a consumption cuore. He did ust to talk about it a right smart though."

Miss Jackson had noticed from the first that Hester's father always questioned the evidence and demanded additional proof. She had noticed that when he was talking with the doctors.

"Get me to a doctor as quickly as you can."

It was only natural that Uncle Sampson should have mentioned Mr. Winters. Later there would doubtless be more talk of him, but now Roxie Tracy had interrupted her uncle.

"Look here, Joe, what's matter with Grandpaw's old standby of ekal parts of . . ."

Uncle Sampson reached over and tapped his nephew on the knee. "There's a fellow name of Winters, what's . . ."

Roxie was unwilling to relinquish her hold on the conversation. Her voice, as suited 200 pounds of weight, was strong.

"Grandpaw said after the war there was a sight of consumption—both gallopin' and ling'rin'," Roxie continued, "and pretty near everybody doctored with linseed oil, honey and whisky."

"Look here, you-all," Mrs. Bracken insisted, "gorantee or no gorantee you can't do no better than to do like Miss Jackson and the doctors says. We wouldn't never pulled Margaret through her second summer if it hadn't been for Miss Jackson. If Hestie was mine I wouldn't give her a drop of nothin' 'les Miss Jackson

said to. I wouldn't feed her nothin' but what Miss Jackson said."

"And what's that?" Uncle Sampson asked a trifle antagonistically.

"Nothin' 'cept what they got here, is it, Miss Jackson? Milk and eggs and garden stuff and fruit and maybe chicken meat. Maybe the garden stuff would have to be cooked some diff'rent from what you're used to and maybe she'd want you not to give Hestie no fried meat and no coffee, and she'd have to have so much milk every meal. I'd sure get Miss Jackson to tell me."

"If you touch me with that blasted stuff . . ." he began.

"Hestie don't like milk," Mrs. Tracy objected. "She ust to did but Grandpaw—'fore he died—laughed her out of it, callin' her a calf."

"Well, laugh her back into it, Lou. If Grandpaw could laugh her one way, you can laugh her the other. That's what your brains is for. And I'd sure fix for her to sleep by herself."

Mrs. Tracy looked across the yard to where her children were playing in the shade of the spring house with Mrs. Bracken's Margaret. There was a catch in her voice as she answered, "It'd pretty near kill her if she couldn't sleep with Ruthie and Em. She thinks it's so big to."

"I'd make her think it was a lot bigger to get to sleep by herself," Mrs. Bracken continued, "and to take a nap every day, and I'd take her back to the doctor reg'lar and I'd do everything him and Miss Jackson said."

"If you could get them three ingreedyunts, Joe," Uncle Sampson urged hopefully.

"Roxie don't know nobody it cuored, Uncle Samp," Joe objected. "Likely she's mixed on the measures, too, and it might been beef's foot oil or mutton tallow or somethin' 'stead of linseed oil. It don't sound right for old-time stuff to have things in it ain't raised around here."

"Still," Uncle Sampson offered, "the honey and whisky was raised here, and even with just them it would likely benefit."

His Aunt Cynthia, a dark, wrinkled little woman past 80, chuckled. "And leavin' off the honey wouldn't hurt it none for you, Sampson."

"How much does a body take, Roxie?" Joe wondered.

"Oh, I don't know as it matters, Joe. A right smart I reck'n from the way Grandpaw talked."

"If I jest had a mite of it right now, I could tell by the taste how much would make a dose," Uncle Sampson promised. "I've took a right smart physic in my day."

"And a right smart that warn't physic, son," Aunt Cynthia nodded amiably.

"I wish somebody knowed of somebody it had cuored," Joe said.

"Still, if I was you and Lou . . ."

"Wait, Uncle Samp," Mrs. Bracken begged. "What you-all got 'gainst tryin' Miss Jackson's way? It's sure paid me and Irv to go by what she said. You-all said we couldn't raise Margaret. You-all laughed at a lot that Miss Jackson told me, but look at Margaret now!"

"One ain't enough to prove nothin' by, honey," Aunt Cynthia told her. "If you had ten you wouldn't be pushin' peas through no flour sifter for 'em."

"I would if Miss Jackson said to. You ain't named no objections yet, Joe."

It seemed taken for granted that it was his place to make the decision. His wife waited for him to speak.

He straightened his tall, stooped body and met his cousin's eyes frankly. "I told you them doctors at the court house said they never goranteed cuores. S'pose we try what they say. S'pose this here turns out to be gallopin' consumption."

His wife caught her breath tremulously.

"It'd be too late then; we ought to start with a goranteed cuore," Joe went on.

"I think you'll find, Mr. Tracy," Miss Jackson suggested, "that honest doctors never guarantee cures, but Dr. Tanner and the specialist feel that we could expect good results with Hester if she follows the directions that we told you about."

Joe Tracy shook his head. "If Hestie can't be cuored I want her to eat what she wants and play all day without no nap if she wants to. If they'd gorantee to cuore her I'd be willin' to cross her 'bout such as that."

Uncle Sampson sighed resignedly. "It's a big mistake to not mix up that remedy Roxie was talkin' 'bout. Seems like them there ingreedyunts ought to pretty near gorantee theyselves; but if you won't hear to that, I guess you better see that fellow Winters what's sellin' liniment over the county. He'd know where a body could get a goranteed consumption cuore."

"Does he gorantee his liniment?" Joe asked hopefully.

"He's got pictures of the awfullest looking sores you ever seen and then them same people after they got well. He claims it'll stop bleedin' and cuore erysipelas and teter and scrofula and fall sores and lockjaw and ringworms and anything atall that the blood has anything to do with."

"You heard him gorantee that?" Joe persisted.

His uncle nodded emphatically.

"We better see him, Lou," Joe said quietly. "If Miss Jackson don't know no goranteed cuores. . . ."

Mrs. Bracken's thin face flushed. "I don't know nothin' else to say to you-all, but I sure think you're doin' wrong."

Miss Jackson got up to leave. There was still one thing she could do. She would wait at the forks of the road for Mr. Winters. It might just possibly be worth while to talk with him.

"I hope you'll think it over until morning and then let me talk with you before you decide anything," she said to Hester's parents.

"Thanky just the same," Joe replied, "but I reck'n it wouldn't be no use. We can't afford to fool with nothin' that ain't goranteed."

Miss Jackson, however, did not have to wait for Mr. Winters at the forks of the road. His car was there already. One fender was crushed against the corner of the rock fence. The windshield was shattered. The salesman was just getting out of the car. His face was pale. He had taken off his coat, and the left sleeve of his shirt was stained with blood.

Miss Jackson got out and went to meet him. His teeth chattered in spite of his obvious effort to appear calm.

"Get me to a doctor as quickly as you can."

She looked at the wound where glass had struck his wrist. "Just your wrist that's hurt?" she asked.

He shivered slightly. "Isn't that enough? Once when I was a kid I nearly bled to death from a cut and then I had blood poisoning. I'd rather break every bone in my body and keep my skin whole than to have a cut like this."

She took her bag from the car and opened a package of gauze.

"Say, are you a nurse?" he asked hopefully.

"Yes," she replied, wrapping a piece of gauze lightly about his wrist. "Get into my car, and I'll take you to the nearest house and put a temporary dressing on for you."

"Do it here," he urged. "I want this bleeding stopped."

"No, we'd better go to the nearest house," she insisted.

"You'll have everything you need for dressings?"

She nodded.

"Say, this is a break," he exclaimed.

"I hope it's a break for Hester," she thought to herself. "Anyway it's worth trying. If he's as frightened as I think he is, it may work."

While he was getting into her car she stooped to pick up a brown bottle from the roadside where the dust was wet with guaranteed liniment.

"I'd give up this work if I were you," she said as she drove back toward Joe Tracy's. "It's dangerous."

He was anxiously watching the red stain spread on the gauze about his wrist. "First accident I've had since I've been working," he said. "Got a gnat in my eye just as I hit that turn in the road."

"I was thinking of your customers," she explained. "It's dangerous for them."

"Oh, hang the customers. A fellow's got to look out for himself. Can't you hurry? It's bleeding like the dickens."

She glanced at the gauze, then pressed her foot on the gas feeder as hard as she dared.

Mr. Winters caught his breath with a gasp, evidently interpreting her haste as she had hoped.

"People do bleed to death from slight cuts," he said.

"Oh, yes, people do bleed to death," she agreed a few minutes later as she parked her car at the Tracys' gate.

She was sorry for Mr. Winters. It must be terrible to have an old fear reach out of the past to take away adult reason and make a baby of one again. Certainly there was nothing alarming about the wound and she didn't like to add to his anxiety, but there was Hester to be considered. It wasn't just a matter of the hard-won dollars that were being exchanged for impossible promises; it was a question of little Hester Tracy's future health. Either she was to have proper care or her parents were to fix their hope on a worthless nostrum.

When Mr. Winters was seated on the porch and the Tracy group had pushed back their chairs to give her room to work, Miss Jackson drew the cork from the brown bottle. "This liniment is guaranteed to stop bleeding and prevent blood poisoning," she said quietly as she poured the liquid on a pad of gauze.

"Say," Mr. Winters protested, drawing his arm back quickly. Blood started afresh from

his wrist in a tiny stream. "Are you a nurse or aren't you?"

"I am," she nodded, "and I am about to apply a guaranteed remedy."

"Haven't you an antiseptic in your bag?" he asked.

She poured a few more drops of liniment on the gauze.

"I understand that this liniment is guaranteed," she said. "If I'm wrong, do correct me."

Mr. Winters caught his breath through clenched teeth. "If you touch me with that blasted stuff . . ." he began.

She put the bottle down and opened her bag. "Fine, Mr. Winters. I feel that way about it myself. Now that we're agreed on that it won't take but a minute to get that wrist dressed to please us both."

Mrs. Bracken looked at Joe Tracy and smiled significantly.

He got up from his chair. "I got to get 'bout my night work, Miss Jackson. You can leave them directions you was speakin' of with Lou, and we're much obliged. I reck'n I don't put such a powerful lot of faith in goranteed cuores no more."

How the Pennies Are Put to Work

MILLIONS of persons in the United States express their holiday wish of "Good will to men" by purchasing Christmas seals, the bright little penny "stamps" sold each year during December to help finance antituberculosis work.

The uses to which these pennies are put include many fields of activity. But in general the tinkle of those pennies has grown to a mighty roar that has helped to drive the tuberculosis death rate in the United States registration area down to less than half of what it was in 1907.

Today there are 2,084 state and local associations and committees affiliated with the National Tuberculosis Association, so that the work is carried on even in the most remote corners of the farthest counties in every state. Since each local tuberculosis association raises its own funds by the local sale of Christmas seals, the amount of work it is able to do depends directly on the support of each community.

Free clinics in charge of tuberculosis specialists are conducted by a great number of associations.

Frequently a nursing service is conducted.

The maintenance of a preventorium is another item on the program of many associations. Good food, plenty of rest, regulated activity to prevent overexertion, and medical supervision constitute the program that improves the health of those who come to the preventorium. Children who have active tuberculosis are never sent to a preventorium. Summer camps are also maintained by some of the local organizations.

The keynote of all tuberculosis work, however, is education. In tuberculosis, more than in any other disease, "an ounce of prevention is worth a pound of cure," and tuberculosis associations constantly endeavor to impress this truth on the public through newspapers and magazines and by means of the radio, motion pictures, slides, distribution of literature, and demonstrations. Only by constant repetition can the truth be driven home that tuberculosis is not an inherited disease.

Statistical research and scientific research, carried on by the national association, have been instrumental in pointing out the way for future action in the care of the disease. Recent studies have revealed, for example, that one and one-half times as many young women as men die of tuberculosis between the ages of 15 and 30. Other data show that the peak of tuberculosis mortality among young women is between the ages of 20 and 24.

The fact that simple preventive measures cost nothing is indeed a standing contrast to the fact that tuberculosis can be cured if discovered early, but that the cure takes considerable time.

The war cry is "Protect yourself against tuberculosis. It is preventable." Once a year the National Tuberculosis Association asks for "ammunition," and since penny Christmas seals are the "bullets" in this warfare it is possible for every one to take an active part.

Acme Photo

What a lovely Christmas present this big St. Bernard dog makes! And what a glorious vehicle is the sled he draws! These two boys at St. Moritz are more than proud as they pose for their picture.

Little Susan, glowing and beaming from play, has quite familiarized herself with the sport of soft snowballing. Play outdoors in December is invigorating.

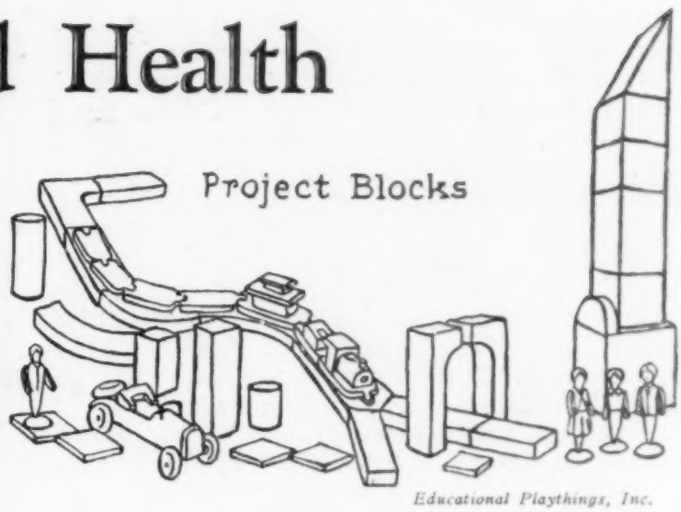
Century Photo

Children of Ningpo, China, are shown making Christmas wreaths at the American Mission School in anticipation of Yuletide festivities.

A Japanese doctor with a Japanese and a Korean nurse are pictured with Chinese patients on the lawn of St. Luke's International Medical Center, Tokyo. Differences between nations are cast aside when health is an issue.

Ewing Galloway

Playthings and Health



Educational Playthings, Inc.

By
ROSE HENDERSON

PROGRESSIVE modern educators have been talking for a number of years about the value of proper play habits for young children, but only recently have children's toys been designed and manufactured that meet the requirements of the educational experts. Intelligent parents are beginning to realize the importance of wholesome and adequately planned play projects, but many of these parents have as yet received little definite help in the way of healthful, psychologically sound apparatus. Expensive and meaningless playthings crowd gift shops and toy departments, many of them being actually harmful to child development. Yet a few enterprising leaders are making toys which answer scientifically the physical and mental needs of children who are of nursery age and older.

These toys do more than merely amuse. They stimulate imagination, hold attention and develop muscular poise and control. They are attractive, well constructed and comparatively inexpensive. With them a child may gain the happy, constructive exercise that is essential for his proper growth. On the other hand, the lack of proper play has been held accountable for many behavior problems. Specialists in child training are placing emphasis on critically selected playthings and work materials, especially designed equipment which has been tested and found to produce satisfying results.

An outstanding characteristic of the new educational playthings is their simplicity, their appeal to child initiative. From the simplest ball or peg board for babies to the more elaborate puzzles and games for older children the equipment calls for thought and action on the part of the child. It is not the sort that adults often buy for a child because it interests them and is perhaps so complete or so complicated that it does not stimulate interest or answer the needs of undeveloped minds and bodies.

Educational Playthings, Inc.

For example, there are the manipulative toys —things which a child can handle, take apart, put together, pile up, knock down, arrange and construct. Through his desire to handle things a child gains a vast amount of important knowledge during the first few years of his life. One is often made aware of this inborn tendency by the harsh admonition of parents who are continually telling a baby that he "mustn't touch" things. To be sure, there are certain objects he must learn to let alone, but this fundamental groping for informing tactual experience should be answered in a significant and educative manner. By manipulation, a child becomes acquainted with shapes, sizes, textures, substances and surfaces. He learns about things which are hard, soft, smooth and rough. Each discovery produces within him a delight which is the stimulus to more and more discoveries. Interest is aroused in the things with which he plays, and it carries him swiftly along roadways of learning.

In addition to his grasping of simple but important facts through handling his toys, correct muscular development is being brought about. Toys which occasion good hand, wrist and arm control are welcomed in every progressive home, nursery school, kindergarten and playroom. Moreover, the child gains an emotional satisfaction from simple accomplishment which adds to his general contentment and well being. Play materials may thus, through the gratification of native desires, contribute to the happy development of body, mind and character.

To this end, informed teachers and parents now demand toys which embody sound construction, artistic design and bright, true color and which have smooth finish, rounded edges, dimensions adapted to correct muscle development, and simple comparative values in regard to shape,

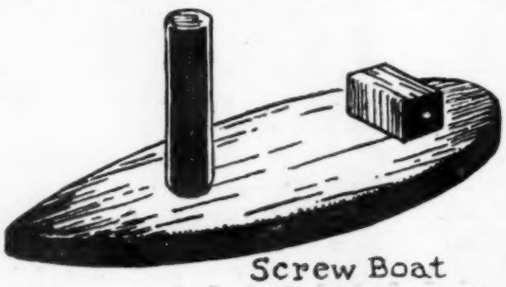
size and color. Objects which are larger than those formerly given to children have been proved the most productive and serviceable.

One of the simplest toys designed for a child who is from 10 months to 2 years old is a baby peg board. Six bright blue, red and yellow pegs have been made the correct size for baby hands. By clutching these pegs, moving them about or fitting them into deep holes in the peg board, a child strengthens his palm, finger and wrist muscles and develops general hand control. He also learns color grouping and naming, and he gets a feeling for simple design. Because of the danger of putting the pegs in the mouth, babies should not be left alone with them.

By means of other devices, which grow gradually more complicated, the child is led to understand and enjoy a toy train of sturdy construction. This toy not only brings the muscles of the hands and arms into use but exercises all the large muscles of the body.

Six rings of graduated sizes in beautiful tones of red, orange, yellow, green, blue and violet are planned for nursery children to carry in their hands, to roll and to watch spin. A peg village of painted wood has a house, a garage, trees and flowers with pegs for sticking into holes in a board or into the sand of a sand box. These toy villages are excellent for encouraging movement and for teaching construction and design.

Young children show a love for creating and watching movement. A wooden wheel in a simple frame is a gaily painted device to satisfy a baby's desire to make things move. Another wheel is a trifle more elaborate and spins longer. A "treasure box" for a baby has holes of various shapes through which to drop things and a lid which may be taken off, so that the objects may be taken out and dropped all over again. Thus, by a careful study of child interest and growth, play materials are so planned as to give children the maximum of scientific training, of individual help and satisfaction.



Screw Boat

Educational Playthings, Inc.

For the more strictly physical exercises, small gymnasium equipment has been invented, which is designed to meet the need in kindergarten, nursery school and home for a piece of apparatus for group play that will occupy a minimum floor space and yet provide adequately for important physical demands of growing bodies or for correcting poor posture habits in cases requiring special attention. By means of four straight ladders, a rope ladder and a "telegraph pole," this little gym offers exercises for the large muscles of legs, arms, back and chest. It has two horizontal bars for lifting and swinging the body. It has a fenced platform for "destination"

Educational Playthings, Inc.

which becomes the deck of a ship, an airplane, the stage of a circus, a house roof or a mountain top, according to the demands of young imaginations. There is also space under the platform to satisfy the play tendency of children to seek a shelter, and this is a house, cave, den, dugout or ship's hold, in answer to the needs of the fathers, mothers, sailors or wild animals who use it. Another "gym" is smaller, lighter and even more compact and can be adjusted to suit children of various ages.

Children adore screwing things, and a screw boat amply satisfies this desire. This toy consists of the flat hull of a boat about 11 inches long and a tiny cabin. It is lacquered in blue. Three differently colored funnels are provided to screw in and out of screw holes on the deck.

A hollow cylinder, gaily painted, is light and convenient for pushing, rolling and lifting by an infant in his prewalking stage. Then, too, there is a boat-train, a simple boxlike structure which may be placed on a rocking frame and made into a boat or a train which children manipulate by pushing from the outside or propelling from within. It encourages a variety of vigorous and healthful exercises and appeals to the child's imagination and his love of movement.

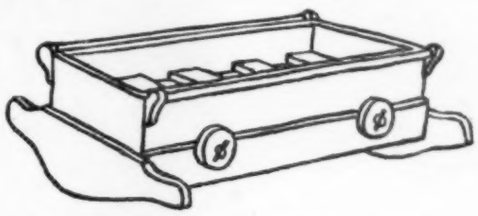
It used to be the fashion to herd babies away from stairways. The modern idea is to provide smooth, safe play-stairs for the nursery and encourage toddlers to climb and crawl over them. There is even an alluring "cubby hole" to creep in and out of under the stairs.

All this play apparatus is sturdily and attractively built. Educational toys are made as nearly indestructible as possible. So a child does not learn to break things as he is likely to do by the use of flimsy, easily broken playthings. Blocks and other devices are painted in vegetable colorings so that there will be no danger if they chance to be licked by small tongues. They have smoothly lacquered surfaces which are easily kept clean. And waterproof dolls may be tubbed like children.

A bed desk with removable legs and an extra serving tray is enameled in green, orchid, peach, yellow or light blue and has a well for a paste jar, another for crayon holder and a third for a water glass. It will prove a delight to the sick-abed child and entice him to wholesome diver-

sions. An attic dress-up box has a mirror, gayly colored cloths, lace, a hat, flowers, beads and bangles, with complete sewing equipment. Any city apartment child who has known the thrills of a real attic may discover some of the joys of dressing up with this appealing assortment of costume accessories.

Educational playthings, of course, encourage many creative occupations and imitative activities. Chairs and work tables that induce the habit of correct posture are scientifically designed, strongly made and beautifully finished. Orderliness is stimulated by appealing shelves, cupboards, boxes and other places to put things. Small willow rockers and arm chairs are painted in bright colors and have gay pads. A day cot for nursery or kindergarten is ideal for daytime resting in the classroom, in convalescent homes or on lawns and porches.



The Trundle-Boat Train

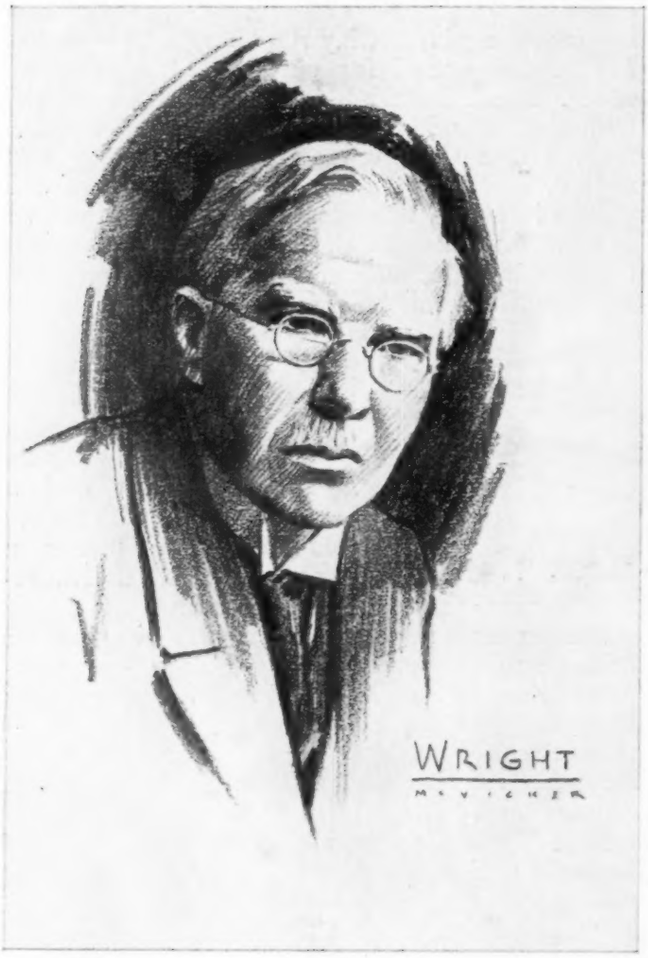
Educational Playthings, Inc.

For play with color are found a flower tile, a landscape puzzle and a jewel tile—all teaching arrangement and design. For ear training there are brightly painted rattles, each making a different sound. Nothing can take the place of floor blocks in the play life of the young child, the educators maintain. Project blocks are of white wood smoothly finished and large enough so that they do not fall over easily. There are strong solid foundation blocks for depots, houses and stores, and straight flat blocks, special switches and curves for train tracks, rivers and roadways. Every normal child loves a journey, and transportation toys broaden his interests.

Through materials for housekeeping play, the child may be guided into habits of helpfulness and independence. Specially planned equipment is required and should be durable and correctly sized for small workers. Brooms, mops, floor brushes, ironing boards, tubs and hand sewing-machines furnish varied and interesting exercise and develop real housekeeping efficiency. Carpenter tools, easels, scrap-books and a kaleidoscope are among the approved toys for creative play. Clay modeling and weaving are recommended for children of 6 years or older. Music materials include drums, cymbals, triangles, wooden clappers and tambourines. Nature and science materials are many and varied, and they lead to a broadening of the child's interests, to alertness of observation and to a curiosity about nature which may be advantageous in character and health development. An aquarium, an insect case for cocoons and caterpillars, a mount showing seed dispersal and a collection of minerals are suggestive educational toys for older children. There are nature albums and a small greenhouse with flower boxes and potted plants, a microscope, health thermometer and compass.

Many games appeal to the child's imagination and dramatic sense. Story-telling toys comprise durable and beautifully finished wooden figures, furniture and scenery with which to dramatize the stories "Goldilocks and the Three Bears," "The Gingerbread Boy," "Little Black Sambo" and "Three Little Pigs." A large story-telling "book" is really a pretty cabinet made to look like a giant volume, and it contains eighty-four figures and shelves to keep them on. Then there is a "Noah's ark" with seventy-seven figures, including Noah and his family and the animals, two by two. There are dainty flower children, wooden figures enameled in colors, each carrying a flower. There are little wooden farmer toys for dramatizing farm stories. Composition animals are painted realistically.

Intelligently chosen toys and other play materials lead the child to think, produce and create. It is better, for instance, to give a child a doll bed without mattress and covers but with the materials for making them. Such suggestive opportunities open new roads to child achievement. Meaningless toys close these roads and deaden natural curiosity and initiative.



"The physician of the future will be an immunisator."

Pioneers of Medicine

Sir Almroth Wright

By

CLAUDE LILLINGSTON

A PEN PICTURE of Wright, of his personality, his career and his achievements, is no easy task. For Wright's personality, with its strains of Swedish and Irish blood, is conglomerate; his career is checkered, and his achievements are multifarious. His compatriots have often been puzzled by him. Accepting conventionality as an expression of truth, they have sometimes wondered, a little austerely, if this unconventional iconoclast was quite, quite truthful. It is so difficult for the average Anglo-Saxon, with his passion for the concrete and the conventional, to follow the gyrations of a revolutionary intellect.

It is quite certain that Wright and his teachings would never have been accepted had he not imposed them on an unwilling world with a wealth of irrefutable evidence and a pitiless logic more than a match for hidebound orthodoxy. Towering intellectually over his countrymen, looking down on them always with a kindly, and sometimes with a combative eye, he has come to be cherished by them as an asset, a trophy, a national mascot.

Born in August, 1861, Wright has enjoyed the benefits of a gifted and mixed ancestry. Both his paternal and his maternal great-grandfathers practiced law, the one in Ireland and the other in Sweden. His paternal grandfather followed the same profession in London, and his maternal grandfather was a professor of chemistry in Stockholm, where he was a director of the mint. Wright's father was a clergyman, who held various church appointments in Yorkshire, Dresden, Boulogne, Belfast, Dublin and Liverpool. A great Hebrew scholar, he also devoted his gifts of pugnacity and eloquence to a campaign against popery.

Born in Yorkshire, Wright moved with the rest of the family to Dresden, Boulogne and other towns where his father had the care of souls. Tutors took the place of schools in these early years which, with their liberal international atmosphere, must have done much to foster the spirit of independence which has given such color and variety to Wright's career. Pursuing his studies under tutors in Belfast and Dublin, Wright decided to enter the medical profession, and having studied medicine in Dublin and gained the Grocer Traveling Scholarship, he proceeded to Leipzig and Marburg, where he worked for some time.

At this stage he began to have serious doubts as to the wisdom of his choice of profession. The prospect of settling down for life as a respectable, plodding medical practitioner left him more and more cold. There were few openings at that time in medical research—the term itself was hardly known. Law, on the other hand, seemed to offer many brilliant opportunities, so he began to read for the bar. To earn a living, he worked as a clerk in the Admiralty in London. At the same time he was working in a laboratory, morning and evening, unable to

tear himself away from his old love, medicine. But what did the Admiralty care for such avocations! The young man had been engaged to sit on an office stool, and that was all there was to be said about it. The lateness with which he took his seat in the office in the mornings, and the earliness with which he left it in the afternoons led to a painful interview with a senior official who intimated to the young man that the Admiralty no longer yearned to retain his services. Fate, in a maliciously ironical mood, decreed many years later that Wright should be called, as the most distinguished physician of his day, in consultation over the sick-bed of this official.

St. Mary's Hospital, London, in which many of Sir Almroth Wright's experiments have been carried on.

The lack of appreciation shown by the Admiralty for his work, and the facilities for scientific work provided by Woolridge and Victor Horsley, in whose laboratory Wright had begun to cut sections for microscopic study, combined to tempt him back again to his old love, and soon he accepted the post of demonstrator of pathology at Cambridge. The respectability of this old university failed to awaken any sympathetic echo in Wright's heart; so after graduating with honors in natural science, he shook the dust of this town off his feet, hoping to breathe purer air in Sydney, where he remained for two years as professor of physiology.

Opportunities and Pitfalls

Meanwhile, Wright was getting to be known as a capable pathologist and bacteriologist, and when the professorship of pathology at the Army Medical College in Netley, England, fell vacant, he was appointed to it. Here great opportunities and pitfalls awaited him. He found the opportunities in his association with other keen intellects, in facilities for research and for teaching young men, bacteriologists with great futures, who were eager to learn all that Wright had to teach them and anxious to explore the many new paths that were beginning to be opened by his genius.

In accepting this post, Wright had become part of a machinery that was not altogether flexible. Army discipline is army discipline, no matter how uncompromising and justified by common sense its victims may be. So after a few years, Wright said good-by to red tape and Netley.

Returning to London, Wright was soon elected by St. Mary's Hospital as head of the bacteriologic service; it has subsequently developed into the inoculation department to which all the world of medicine has flocked. And here he works to this day.

Wright's greatest achievement is much better known to his fellow scientists than to the man in the street, who associates him with the introduction of preventive inoculation against typhoid. It would be impossible to minimize the value of this work—of which more anon—but the realm in which Wright is not only the unchallenged master but also the creator is that of laboratory technic. He found it a primitive handicraft, and he has made it an exquisitely delicate and exact science. Devising ways and means for counting microbes and measuring their activities in the precise terms of the mathematician, he has done for bacteriology what the modern astronomer has done for his own science. The envious and ignorant began by pooh-poohing his "laboratory tricks," but those who were wise enough ended by hying themselves to his laboratory to learn them. Here, to the suprise of some of his visitors accustomed to the jealous secrecy of a few laboratories, he has kept open house in the best sense of the term. He has no laboratory tricks to hide or sell to the highest bidder.

The Solution of a Problem

In the early nineties of the last century, medical science was in a sense dominated by Pasteur's brilliant achievements with the inoculation of living microbes whose virulence he had artificially reduced. This method has obvious dangers and certain limits; Wright came to the conclusion that it was not applicable to typhoid. He foresaw that immunity to this disease might

be created artificially by the inoculation of dead typhoid bacilli. How many should be injected at a time, at what intervals should he repeat an injection, and how many injections were desirable?

To answer these pertinent questions, he took samples of the blood of persons who had been inoculated with various doses of dead typhoid bacilli and mixed these samples in the laboratory with living typhoid bacilli to see what happened to them. He not only found that these samples could kill a hundred or even a thousand times more typhoid bacilli than control samples of blood taken from persons who had not been inoculated, but he also noticed that, when he increased the number of dead typhoid bacilli injected beyond a certain limit, the blood did not respond as satisfactorily as to a smaller dose. By measuring the capacity of samples of blood to kill living typhoid bacilli, he ultimately worked out a system of dosage of his vaccine of dead typhoid bacilli with an amazing degree of accuracy.

This work took many years. It was begun about 1895. It had advanced so far by 1899 that when the Boer War broke out, some of the British troops were inoculated regardless of bitter opposition in certain high quarters. Though the technic of this vaccination had not attained the perfection it has since reached, and though the numbers thus vaccinated in the British army were not great, a plausible case was made out for this measure. Vaccination against typhoid was started in the American army also in 1899. In Germany also, Pfeiffer had made out a convincing case for typhoid inoculation before the end of last century.

Penalties of Unpreparedness

The opposition to preventive inoculation against typhoid which Wright encountered in his own country had its tragic parallels elsewhere. The Great War caught both the German and the French armies unprepared. The French army was only about one-third vaccinated in August, 1914, and the German army had hardly a man vaccinated. The British Expeditionary Force, on the other hand, was well equipped in this respect. Serious outbreaks of typhoid in the German and French armies before the end of 1914 drove home the lessons that Wright had been teaching for years, and soon inoculation against typhoid was adopted as a routine measure in the armies on both sides. It has been calculated that, but for Wright's work, some 180,000 soldiers in the Allied armies would have perished from typhoid, if it had behaved during the Great War as it did in earlier wars before the introduction of typhoid inoculation. If one adds the lives saved in the armies of Germany and her Allies as well as in the civilian populations, one reaches a stupendous total of "negative casualties" which can be compared not unfavorably with the biggest "positive casualties" of the most famous generals in history.

Some twenty years ago, Wright wrote on the title page of his book "Studies on Immunisation" the following words: "The physician of the future will be an immunisator." His work on typhoid has proved how great a part can be played today by the physician as an immunizator. Certain schools of medical science have interpreted this teaching in a narrow sense. They have argued that prevention is everything, and treatment is little better than locking the stable after the horse is stolen. If one were to accept this specious argument at its face value, one should cease to teach devices for restoring the apparently drowned to life and should limit activities to teaching every one to swim or not to bathe or go to sea.

Curative vs. Preventive Medicine

In opposition to the school of medicine that is exclusively preventive, Wright has for many years been convinced that the most effective work of the future in medicine will be curative rather than preventive. His work in combating diseases already in progress may be illustrated by the case of a patient suffering from a boil. It is at first strictly localized, just as the effects of the bite of a dog suffering from hydrophobia are at first strictly limited to the part bitten. And just as Pasteur succeeded in preventing the development of hydrophobia by inoculation, so Wright proceeded to inoculate patients suffering from boils by injecting dead, not living, cultures of the germ responsible for the boils.

While studying the changes provoked in the blood by the injection of various dead germs, Wright discovered certain constituents of the blood that play an important part in the destruction of invading germs. These constituents, to which he has given the name opsonins, render the germs palatable to the scavenger cells of the blood, the white cells or leukocytes. Not content with discovering the existence of these opsonins, Wright has subjected them to strict measurements with the aid of his "laboratory tricks," and he has shown how the demonstration of changes in the quantities of these opsonins can be a guide to vaccine treatment.

Commenting on this work, one of Wright's assistants, Dr. Leonard Colebrook, who has been associated with him since 1907, has written: "By this discovery, Wright had surprised one of Nature's big secrets in connexion with the immunity to bacterial diseases. . . . All this meant an infinite amount of work—and after 30 years it is not yet nearly finished."

Wright has done much more than simply invent and discover things. He has created a new school of medicine, enunciated new principles and gathered around him a devoted staff among whom he is affectionately known as The Old Man.

At the age of 70, Wright continues to work in a common laboratory shared with five others of his staff and is ready to help or sharpen his wits on any visitor, whether he is Bernard Shaw, scoffing and satirical, or a solemn fellow savant with some profound problem to unravel. To quote again from Dr. Colebrook: "The tea-table gatherings of Sir Almroth and his staff have quite a unique character, for here the 'Old Man's' wonderful gift for conversation finds free play, and the great range of his intellectual life is revealed. Discussion turns, perhaps, upon some aspect of current research work, cherished beliefs are called in question, and divers views are 'put up' to an accompaniment of friendly chaff; or Wright will entertain the company with fresh discoveries of the shortcomings of the female intellect and the feminist position; or again he will talk about new words which he wishes to put into currency, or principles of intellectual morality which he has been trying to formulate."

Brief Healthgrams *from Articles in This Issue*

¶The term sterling, as applied to silver, dates back beyond the thirteenth century to the Easterlings, who were traders of the Hanseatic cities of Flanders and the Lowlands. It was in 1216 A.D. that King John of England called these Easterlings to his court and, because of the reputation that had been earned by their silver tokens of exchange, assigned to them the task of reforming the English coinage. *See page 1082*

¶In middle age it is quite advisable to cut down the waist-line if one does not want the life-line cut short. Through periodic health examinations the family physician can give good cues as to how to keep well. *See page 1101*

¶A recent art exhibit of work done entirely by physicians throughout the country has shown a trend in cultural existence, the trend toward personal satisfaction in individual expression in art, which is more important for happiness than is any other activity; if this is not true of all people, it is increasingly so of many, and of other professions and occupations. *See page 1090*

¶Sweets are best when served at the end of light, well balanced meals, being considered a wholesome part of those meals because of the valuable food they contain. *See page 1079*

¶"The physician of the future will be an immunisator." This statement was made by Sir Almroth E. Wright, whose work on typhoid has proved how great a part can be played today by the physician in the important task of establishing immunity. *See page 1122*

¶The value of medicines manufactured in the United States yearly totals $500,000,000. The 1930 imports of raw materials amounted to $114,934,000. *See page 1110*

¶The onward rush of scientific achievement in medicine, chemistry, bacteriology, sanitation and disease prevention in no wise dampens the brazen effrontery of this seductive gentry—the hocus-pocus, "patent medicine" fakers. With glib tongues, glamorous promises and glittering labels, they impose themselves on the confidence of suffering humanity. *See page 1093*

¶Intelligently chosen toys and other play materials lead the child to think, produce and create. Suggestive opportunities open new roads to child achievement. *See page 1119*

¶When unemployment or other factors are present which affect the purchasing power of the family, there is a tendency on the part of the housewife to economize first through her food budget; and the so-called extras, such as salads, vegetable side-dishes, fresh fruits and dairy foods are looked on as luxuries which are to be omitted from the menu. This lack of nutritious foods may produce dire results. *See page 1087*

¶Cards attached to every Christmas-tree sold in Dayton, Ohio, and distributed to all school children warned parents of the dangers involved in Christmas-tree decorating to such an extent that all fires from this cause were eliminated for several consecutive years. *See page 1096*

¶No external medicine has yet been invented that will make hair grow; there is no basis in the claim that rubbing any face cream into the outside layer of the skin will feed the skin cells. *See page 1074*

¶A definite schedule and routine are as essential in sleeping habits as in every other phase of a child's life. Children should eat, play, work, go outdoors and be put to bed as automatically as clockwork, for the best interests of both mother and child. *See page 1104*

Ditties for December Days

Drawings and verse by Riggs

Ears are full of curlicues,
And finger nails get dirty,
The middle of my back is hard to reach.
But outside of that,
There's nothing to a bath—
It's just the same as being on the beach!

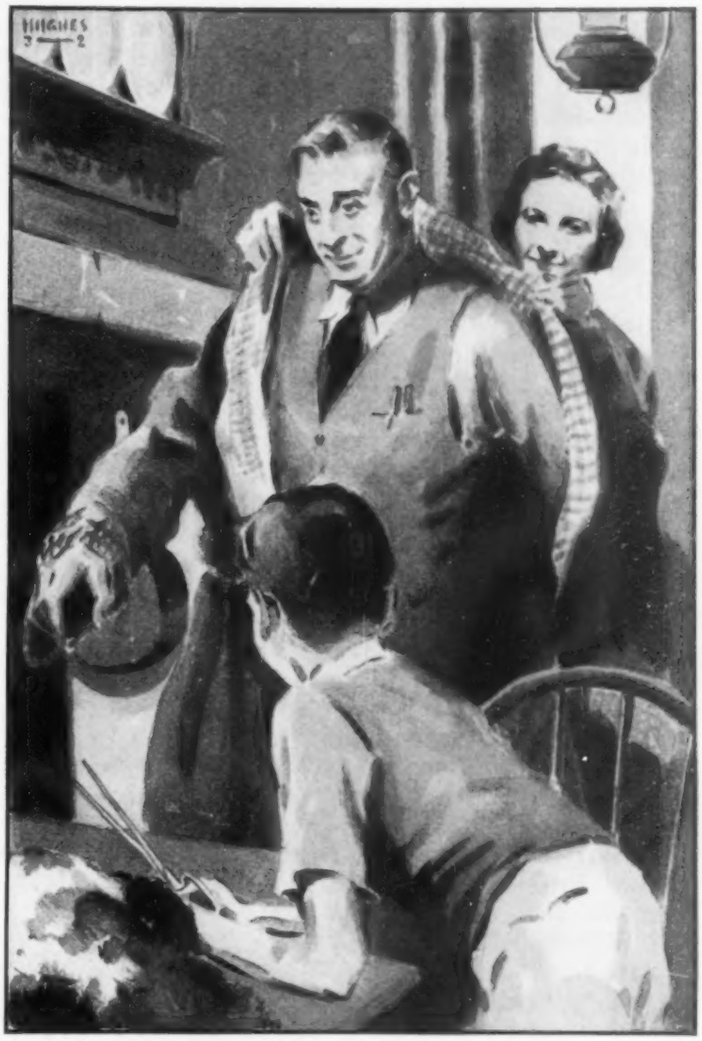
Brush goes up,
Brush goes down,
Over, under, all around.
That's the way to make teeth shine.
That's the way that I scrub mine.

There's nothing more fun than to run
In the sun and snow
When the wind goes "woooo,"
And the snowflakes blow
All about my head, and my cheeks get red.

The stars up in a Christmas sky
All seem to shine so bright—
I wonder who scrubs up each face
Before they go to bed at night?

Father Christmas Visits The Cove

By
Abigail F. Halsey



A red bath-robe served as Father Christmas' costume.

WHAT DOES the map of North America look like to you? To me it looks like a big dog with a biscuit in his mouth. Get out your geographies, girls and boys, and see if you can find the biscuit.

"Here it is," some one says quickly. "The Gulf of St. Lawrence is the dog's mouth, and the island of Newfoundland is the biscuit."

This big island is a cold place in winter, and winter lasts nine months of the year. The cold currents from the Arctic ocean flow around it. The month of June often comes before the ice goes out of its harbors and the icebergs float away. This leaves only two months of summer.

The children of Newfoundland enjoy the summer, when the grass grows green, the flowers bloom, and there are fresh vegetables to eat.

Edgar liked the summer. He lived in the northern part of the island where it is coldest. When summer came, he could sit on the hill above the long harbor and watch the fishing boats go out. All the other girls and boys liked to run down to the wharf where all the people were, but Edgar lay in the grass on the hillside and watched the white sails of the fishing fleet go across the blue water and beyond the great headlands until they were lost to sight against the bluer sky. Edgar's father was a fisherman. So was every one else's father in The Cove. If the summer was long and the fish ran well, the season was a good one. That meant that Edgar, Alf, Esther, Jane, Sam, Wilson and Baby Ruth all could have warm clothes and good food through the long winter. But if the summer was short and fishing was poor, Edgar and his brothers and sisters would have to wear last winter's clothes and eat only bread and tea and molasses with their salt fish. This was true of every girl and boy in The Cove. This was true of almost every girl and boy in northern Newfoundland, a land of steep headlands, long harbors and scattered settlements.

Then the Good Doctor came. He took a little ship and made it into a hospital. All summer he sailed up and down the long, rocky coast, stopping at the tiny coves, to help the sick people. He helped every one. "We preach by our work," he said, and no matter what the trouble was—a toothache, a broken arm or a long sickness—he cured the people when he could, and if he could not cure he helped one and all by his good cheer and kindness. When winter came, however, the hospital ship had to be laid up. It could not get through the thick ice that filled the bays and harbors. In the winter the Good Doctor went by dog sled across the frozen hills, through the deep snows of the forest and even across the uncertain ice in the bays between the headlands.

It was on account of the winter that the Good Doctor built the hospital. Here the sick people from all around were brought for care. After the hospital was finished, he built the Children's House, a place where orphaned girls and boys —and, indeed, the sea made many orphans— could find a home. Many other things the Good Doctor did to help the people. He put the fathers to work building a saw-mill, where they could earn money when fishing was bad. He found some one who came and taught the mothers to weave and knit rugs. They, too, could earn money in their own homes. No one was quite so poor any more.

Edgar loved the Good Doctor and learned to do many things he had never done before. He went to the new school and studied reading, writing and arithmetic. He helped the Good Doctor by running errands at the hospital. After a while he went to live in the Children's House, not because his father and mother were dead but because he could do so many things to help Miss Star with the children. He helped wash their faces when they went to bed at night and again when they got up in the morning.

"Ouch, Edgar, you're scrubbin' my skin off," a little boy would complain.

"Miss Star tells me to scrub till ye can feel yer face is clean, lad," Edgar would answer. "Ye must have a clean face to drink yer milk."

Milk was something new for the children of northern Newfoundland, and it had been one of the great problems of the Good Doctor. Of course, the children needed milk. The strong tea their parents gave them was bad for them, but what could the Good Doctor do if he had no milk to take the place of it? There were no cows on this cold north end of the island. The winters were so severe that the cows could not live even if the dogs would let them. Every one kept a team of dogs to draw the winter sleds. Because the dogs were not well fed, they became fierce. Several times people had attempted to keep cows and had failed; the dogs were too many and too strong. Finally the Good Doctor brought condensed milk to the store in The Cove; but it cost money, and few persons had money to buy enough milk for their children. Only the children who lived in the Children's House had milk every day. They soon learned to like it. They liked it so much that they were patient with Edgar's scrubbings when they learned that milk came next in the day's program.

"Ouch, Edgar, you're scrubbin' my skin off!"

Then the reindeer came to Newfoundland, and it was the reindeer that brought Father Christmas! Like the famous story of Old Widow Corey, girls and boys, "now my story's begun." The Good Doctor remembered that in a cold country in Europe called Lapland the natives milked their reindeer. Already reindeer had been brought to Alaska, so why not bring them to northern Newfoundland? There would be rich reindeer milk for children to drink, good reindeer meat for every one to eat and warm reindeer skins for the winter clothes! There was another change possible. The gentle reindeer might replace the fierce dogs on the winter sleds; one reindeer could take the place of a team of five dogs. Some one gave the Good Doctor the money. Like magic it brought 300 reindeer from Lapland to Newfoundland. Mr. Jess and Edgar and some other boys built a high fence around the reindeer farm to keep the dogs out, a Lapp family came along to herd the reindeer, and soon there was milk for the children.

Mr. Jess had come to Newfoundland to help the Good Doctor. He had just finished college and was studying to be a preacher. "We preach by our own work," the Good Doctor had told him.

"All right," Mr. Jess had said, "that's just what I want to do. I'll do any work you have for me."

Edgar liked Mr. Jess from the first day and liked to work for him almost as well as he liked to work for the Good Doctor. Mr. Jess loved this cold north country and liked to visit the people and get acquainted. Best of all he liked to go to the Children's House and play with the youngsters. As Christmas drew near, he heard the children talking about Father Christmas. Father Christmas, they told him, was an old, oh a very old, man with a long white beard. He wore a long red robe and a big fur hat and boots and mittens. He always carried a great staff in his hand. Over the hills and through the woods he trudged, no matter how deep the snow, to bring the children their Christmas gifts. True, it was not much he brought —a rough colored piece of wood for a doll perhaps, or a warm shirt from the store, and perhaps a little bit of candy made from molasses. If the fish had

run well in the summer, Father Christmas brought better gifts. No one had ever seen him, oh, no; but every one had heard about him, and every one was looking for him.

Mr. Jess thought a great deal about Father Christmas. He could remember how it had been when he was a little boy and had waited to hear Santa Claus come from the north country with his reindeer. Here he was in the north country, and here were the reindeer too. Why should he not bring Father Christmas to the children who knew so little of him? "No sooner said than done" was Mr. Jess' motto. He went to the Children's House and said to the children, "If you want to see Father Christmas and his reindeer, come over to the hospital at 12 o'clock on Christmas Day." Then he added, "Edgar, I'll need your help."

Across the blue water, Edgar watched the white sails of the fishing fleet.

So it came about that Edgar, chore boy for the Children's House, became Father Christmas' right hand man for the next twenty-four hours. First of all, Father Christmas must have some clothes to wear. Miss Star's red bath-robe was fitted to Mr. Jess' ample figure. It was a little tight across the shoulders but, trimmed with white fox fur, it became a fitting robe for the Christmas saint. There was a cap to match the fur. The boots were not hard to find, for Edgar brought a pair which belonged to his father. Fur trousers were not so easy to obtain, but the bath-robe was long enough to cover up the fact that the fur did not go all the way up. Of course, there were fur mittens, Mr. Jess' own, but the pack! The Good Doctor brought a duffel bag from the ship, and Miss Star and all the other helpers supplied the gifts.

Mr. and Mrs. Santa Claus in their home at the North Pole were no busier on the day before Christmas. Some kind friend from "The States" had sent a big pail of hard candy on the last boat of the year. This was divided into small portions and wrapped in Japanese napkins, for there were no Christmas boxes. Toys for the children came from somewhere—a nameless friend had sent them to the Good Doctor. These, too, had arrived by the last boat of the year. It was harder to find gifts for the old people. Father Christmas insisted that every one in the hospital must be remembered. Edgar was as busy as a bumble bee, going back and forth from the hospital to the Children's House, over to the Good Doctor's house, back to Mrs. Jess, who like a real Mrs. Santa Claus made mittens, tippets, caps and old ladies' shawls to order until Christmas Day.

Last of all there were the reindeer. Only a few of the herd had been trained to the rein. So Mr. Jess decided that Father Christmas, who, tradition said, came walking through the forest, would be well fitted with one reindeer and sleigh. Old Gray, the reindeer which drew the sled from the store to the hospital and Children's House, was chosen. He was a gentle creature, and no one felt any doubt about his gentleness in his new rôle of Prancer or Dancer or Dasher or Comet or Cupid. Alas, he turned out to be the combination of Dasher and Vixen and Dunder and Blitzen before "the story is done." Proudly, Edgar harnessed him, hitched him to the sled and then drove him up the hill to the Children's House. There Mr. Jess, resplendent as Father Christmas, waited.

No one had to tell the children twice, "If you want to see Father Christmas, come to the hospital at 12 o'clock on Christmas Day." Long before the clock struck 12, all the little boys and girls were sitting around the great Christmas-tree in the big ward of the hospital. All the sick people who were able sat up in chairs, and all who were not able were propped up by pillows. Every one was happy. Every one was smiling and waiting.

Meanwhile, Mr. Jess, "dressed all in fur from his head to his foot," was having a hard time with his reindeer. At the top of the hill, Edgar gave him the reins. Old Gray was not used to so gay a driver. He kicked up his heels as he saw the red coat, and he ran down the slippery, icy hill to the hospital—this way and that way the sled twisted from one side to the other.

"Whoa," cried Father Christmas, "whoa, I say," as with much geeing and hawing he stopped the sled at last and threw the reins to Edgar, who had run all the way to be ready to take them at the hospital door.

Edgar tied the reindeer and opened the door just in time to see the children drag in Father Christmas with his, "Merry Christmas, everybody, Merry Christmas! I'm here at last, and glad to see you. Oh, how glad I am to see you! Merry Christmas!" And all those children who

had never seen Father Christmas before, shouted back, just as you would, "Same to you!"

There was something for every one in Father Christmas' big pack. First came a little bag of candy for all, old men, old women, fathers, mothers and children. Think of it, many of them had never tasted real candy before. Then came warm mittens for the old men and warm caps to pull over their ears, and little shoulder shawls for the old ladies to keep them warm in the middle of their backs. There were toy trains for the boys. No railroads ran in that part of Newfoundland, but every boy knew what to do with his little train. Then for the girls! I don't suppose any one could guess what Father Christmas brought the girls. Dolls? Yes, dolls. Real dolls for little girls who had never owned real dolls in all their lives, dolls with curly hair, dark hair and light hair, brown eyes and blue eyes, dolls that said "Ma-ma" and wore clothes that could be taken off and put on again to every little mother's heart's content. Shoes and stockings, too, they had and little warm capes and caps for the cold country where they were to live. Oh, I do not need to tell you that this was the happiest Christmas that ever came to Newfoundland!

And that was not the end of the story, as it was in Old Widow Corey's tale. For every little child there was good food, good milk and a nice warm bed. This story is going on and on. The fathers do not have to depend entirely on their fishing any more, and the mothers are weaving and knitting rugs which they can sell. Life for all is not as hard as it used to be before the Good Doctor came with his hospital ship and Father Christmas came with his reindeer to Newfoundland.

And Edgar? Edgar came to New York with Mr. Jess and went to school. Later he learned to build houses and went back "down in Newfoundland," to build good ones.

One day Mr. Jess said, "Edgar, now that you've lived in New York, would you like to live here always?

"Well, sorr," said Edgar, "I like it right well, but as for *living*, well I guess I'd rather *live* down home."

The Double Cross-Word Puzzle

APPLE

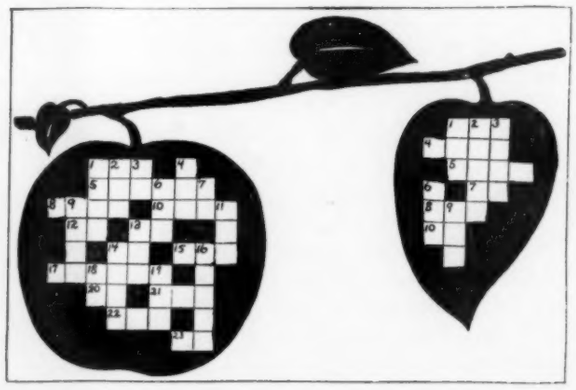
By Vivian Koski Cook

ACROSS

1. Lion.
5. Reply.
8. A narrow strip of cloth around a dress.
10. Conclusions.
12. A point on the compass.
13. The two letters a doctor has after his name.
14. Abbreviation for West Africa.
15. Not to obey the law of God.
17. To agree.
20. A pronoun.
21. A tavern.
22. Noise.
23. Abbreviation for Teddy Roosevelt.

DOWN

1. A path.
2. Final.
3. Bone.
4. A lair.
6. To marry.
7. Abbreviation for road.
9. A kind of insect (plural).
11. Boy.
13. Male.
14. An unwanted plant.
16. Opposite of outer.
18. A point on the compass.
19. A metal.



LEAF

ACROSS

1. An animal that gives milk.
4. A cloak without sleeves.
5. To tear or rip.
7. Abbreviation for North Territory.
8. Opposite of no.
10. Abbreviation for Esther Adams.

DOWN

1. Something most people ride in.
2. Opposite meaning of shuts.
3. Past tense of the verb "go."
6. What one sees with.
9. To put something into one's mouth.

(Answers on page 1147)

HEALTH and the SCHOOL

Edited by J. Mace Andress, Ph.D., 67 Clyde Street, Newtonville, Mass.

The little patients of the In-Bed-Club are sent a monthly magazine, picture puzzles, a badge, bed jacket and other things of interest to keep them quiet and contented as their hearts grow stronger day by day.

Does Your Community Need An In-Bed-Club?

THE SEASON of the year has come when one puts forth a special effort to remember others and forget self. The sages of the past are reminders that such thinking and unselfish action promote happy living. But this wholesome philosophy needs to be practiced not only during the Christmas season but also during the entire year. There are some pessimists who question whether altruism still exists in these trying times. To rid oneself of such morbid notions it is necessary only to recall the efforts that are now being made to help the children of the nation to better health.

Among these activities is one in my community known to its supporters as the "In-Bed-Club." It is not the only one of its kind, for it functions in other cities outside of Greater Boston under different names although everywhere it has the same purpose, to minister to the needs of children with heart disease who for longer or shorter periods of time must lie in bed to benefit by the treatment prescribed by physicians. With this care many of them hope to recover to such an extent that they may continue their work in school and take up some trade or profession suited to their physical limitations.

Many teachers do not realize how great is the number of cardiac sufferers among children. At least a quarter of a million children in the United States are victims. About one child in every hundred of school age in Greater Boston has heart disease. In the vast majority of cases the infections causing heart disease are associated with rheumatic fever while others are the result of complications involved in certain diseases such as diphtheria, scarlet fever, sore throat and tonsillitis. These four diseases, however, are responsible for only about 10 per cent of the cardiac trouble.

The committee of the home care of children with heart disease, which functions under the auspices of the Massachusetts General Hospital, has a most interesting story to tell the world. It has started a unique club for small bedridden patients, called the "In-Bed-Club." It is intended to stimulate in each child a new interest in life and make him feel that he is a member of a group. It is essential that the patient is kept happy and hopeful if the in-bed treatment is to be a success. For this reason the little patients are sent a monthly magazine, picture puzzles, a badge, bed jacket and other things of interest to keep them quiet and contented. In the meantime, as the weeks and months go by, their hearts may have a chance to get well.

This committee also sponsors a mothers' club for the mothers of the children who are heart patients. These mothers meet every month to discuss the common problems involved in the long-time care of the in-bed child.

As a result of the work of this committee, volunteers go into the

homes to tutor these children so that they may lose little or nothing in their studies because of absence.

This splendid service for childhood should appeal to all public-spirited citizens. Not only does it mean the saving and prolongation of life but it helps boys and girls to escape invalidism and to become useful and happy citizens.

The "In-Bed-Club" is a challenge to every community and school. It suggests that through careful physical examinations every school should determine the number of cardiac sufferers in the school. Such children should be protected against overdoing in physical training and athletics. Rest periods should be provided in many cases. It is essential that the children should be taught how to live within their limitations. All pupils in the upper grades should receive some elementary instruction on the care of the heart. Since more than 90 per cent of heart trouble in children is due to rheumatic fever and since this disease is so frequently associated with or caused by the same bacteria that cause tonsillitis and sore throats, the educational program should emphasize the prevention and early cure of these apparently innocent diseases.

In teaching hygiene to older students in high schools, normal schools and colleges, it is always desirable to have the pupils do something practical. It not only arouses an interest but leads to some definite results. Such students might well be called on to help organize an "In-Bed-Club" or to render service to little in-bed patients who from necessity are compelled to spend many long and possibly dreary weeks confined to their beds.

HYGEIA readers will be interested in an article under the section "Teaching Health," written by Dr. I. H. Goldberger, assistant director of health education in the public schools of New York City. It tells of the work which is being done in that city for children with heart disease.

Those who wish to know more about the hygiene of the heart will find "Taking Care Of Your Heart," by Dr. T. Stuart Hill (New York: Funk & Wagnalls Company) an inexpensive and helpful booklet. The Metropolitan Life Insurance Company, New York, has two excellent booklets entitled "Strong Hearts" and "Give Your Heart A Chance." For general information about the hygiene of the heart, one may write to the American Heart Association, 450 Seventh Avenue, New York. This association publishes valuable material which may be secured free. The back numbers of HYGEIA also contain many especially good articles on the heart.

TEACHING HEALTH

(In this column will be published each month concrete examples of good health teaching. Teachers are invited to send in contributions not exceeding 600 words and preferably less to the editor of this department. Illustrations of the actual work of children will be welcomed. Contributions accepted will be paid for but no manuscripts will be returned.)

WHAT THE NEW YORK CITY SCHOOLS ARE DOING FOR THE CHILD WITH HEART DISEASE

A CITY-WIDE study of children with heart disease was undertaken in New York last spring to improve the methods of caring for these handicapped children in school. The study also helped to stimulate parents to provide better home care and to seek regular medical treatment. The study revealed that there are approximately 70,000 children with heart disease on register in the elementary schools. Of that number, 1,118, or 16 per cent of the total number of pupils so affected, are physically unable to attend regular classes; they therefore receive instruction in special classes or at home. If the same school care were given pupils with heart disease today that was permitted in the past, this number would be considerably larger. In other words, the present specialized school care of pupils with heart disease is responsible for taking a large number of such pupils out of their invalid chairs at home and placing them in seats at school, where they are being educated on an equal basis with children who are physically normal.

The survey disclosed several other things. First, we found that there were hundreds of cases, previously designated as cardiopathic, in which the children did not have cardiac ailments at all. There were thousands of children who, while they had heart disease, did not require a restricted motor activity program. There were many who were carrying on in an unrestricted manner who should have had a modified or restricted motor activity program. And there were some pupils receiving home instruction who later were able to attend school in special classes for children with heart disease.

The question arises quite naturally, how are children with cardiac disease discovered? The New York state education law requires every child entering school for the first time to present a certificate of physical examination signed by a licensed physician. As an additional precaution, the school medical inspectors make routine physical examinations of all pupils in the first, third and sixth grades. Although thousands of children with heart disease are discovered through these two medical services, by far the largest number of children are reported by parents themselves.

On receipt of such information, it becomes the duty of the school principal to furnish parents of pupils with cardiac ailments with an official hospital and clinic card. It is presented to the child's physician, who answers the various questions printed on both sides of the card. These relate principally to the child's ability to indulge in physical exercise, to the presence of other physical defects and to the state of nutrition. The physician is asked to give his opinion as to whether or not the child should be in a hospital or in a convalescent home; whether or not school attendance is advisable, and if so, whether or not a special class for cardiac cases is indicated. Answers to these questions are based on the physician's appraisal of the pupil's condition. His opinion is expressed by means of a code known as the cardiac classification. For example, if the examining physician believes that his patient is able to walk to school, can climb stairs and engage in the same games, sports and other school activities that physically normal children do, he places a check in a square marked Cardiac Classification I. If he feels that the child's heart musculature is such that he can stand the strain of climbing only one flight of stairs and engage in light play and recreation, he checks Cardiac Classification II-A. Such pupils are placed in classes for children with diseased hearts. At present there are

fifty such classes. Bus service is provided for those who reside more than five blocks from the school. They are excluded from participating in rapid dismissals and fire drills with children attending regular classes, and they are not allowed to act as messengers. Lunch is eaten in the classroom. Rest periods are part of the daily program.

Cardiac Classification II-B indicates that the pupil's heart is in

such a weakened condition that he is physically incapacitated to attend school. A visiting teacher is assigned to instruct him at home. There are only forty-eight class II-B pupils receiving home instruction. A pupil in Cardiac Classification III is not equal to any physical activity. Such children are confined to bed either at home or in a hospital, too sick to receive even bedside instruction from one of the home teachers. The names of these children are placed on the suspense register. Cardiac Classifications IV and V include children with functional and doubtful heart conditions and those with a history of repeated attacks of sore throat, tonsillitis, rheumatic fever and chorea. These children attend regular classes.

The hospital and clinic record cards are sent directly to the assistant director of health education in charge of handicapped children, who interprets the doctor's recommendations. The school principal is then instructed in the procedure for the care of the pupil in school. He places a red colored seal, indicative of heart disease, on the pupil's class record card and enters the child's cardiac classification on the red seal. One copy of this card is kept in the teacher's desk and another in the principal's office.

Especial care is taken to adapt the course of study to the physical ability of the individual child. Both in the special class and with home instruction the pupil with heart disease may progress as rapidly as he is physically and mentally able. The classes in school and home instruction service are two important steps employed to improve the general health and heart condition of the child. The program is flexible. Depending on the physical condition of his heart, the child may, on the recommendation of his physician, progress from home instruction service to a cardiopathic class in school and finally to a regular class. On the other hand, should his cardiac reserve fail, he is transferred back to a special class or may even be scheduled to receive home instruction. As his health improves again, he progresses from one graded activity to another until he is back again in a regular class. Such care provides the means of sustaining maximum cardiac reserve and prevents undue strain on the pupil's heart musculature. All these pupils are taught to live within their heart budget, so to speak. The preventive program for these children makes possible uninterrupted school attendance, ability to carry on habitual and customary activities at work and at play, regular promotion and normal scholastic progress. Most important of all, it teaches the handicapped child that, within reasonable limitations, he can be as useful a citizen as his neighbor.

I. H. GOLDBERGER,
Dept. of Health Education,
New York City.

CANDY FOR SCHOOL CHILDREN

KNOWING that the Christmas season may bring overconsumption of candy the faculty undertook a school project in an attempt to do something about it at the approach of the season. The teachers were asked to plan some sort of an effective program by which the children's interest could be aroused.

To overcome the possibility of children being provided with an overabundant supply of candy was a problem worthy of our best thought. Hence, with a great desire to secure the cooperation of the parents to avoid this trouble, the following lesson was planned by one of the primary teachers.

A preliminary talk was given and stress was placed on the fact that when sweets are taken, they should be taken only after meals, for when taken between meals they tend to spoil the appetite for other necessary foods.

In preparation for the lesson, the teacher brought a food grinder, one or two large spoons, a small knife and several sheets of waxed white paper, which she placed on a table in front of the class. She then placed on the paper a bowl containing 1 pound of seeded dates, ½ pound of seedless raisins, ½ pound of shelled English walnuts and a small quantity of powdered sugar.

After the instructor had given a talk on the necessity for clean hands when working with foods, the children all came up around the table to see and help.

The ingredients were placed in the food grinder, and as the teacher talked about the food value of nuts, raisins and dates, several children took turns at grinding, until all the ingredients were properly mixed. The mixture was then turned into a dish and molded by the teacher and her immaculate helpers into small round balls, dusted with powdered sugar, laid carefully on waxed paper, covered with a sheet of the paper and left to dry. The next day, each child was given a sample to eat after his lunch and one to take home for his mother.

Next, small booklets with holly decorations were made, and the recipe for this nutritious candy was written out in the children's best handwriting. These booklets made exceedingly nice Christmas gifts for the mothers, but best of all, they gave an idea to many mothers

which will be carried out, providing a candy which has much nourishing food value and not the harm of overindulgence in pure sugar.

This teacher aroused the interest of her group of children by letting them have an active part in this worthwhile project, and their enthusiasm indicated that for this year at least, the candy problem was solved.

BERTHA L. SWOPE,
East Cleveland, Ohio.

HOW THE HOME IS SERVED

THE CHILDREN of the first grade were weighed and measured at the beginning of the school year, and it naturally followed that one of the first health talks was on good food for children. Milk was discussed as a means of growth. In like manner the class studied fruits, cereals and vegetables and their value as foods. The sources of food supply furnished topics for class discussion for the first six weeks of school. It was decided as the main unit of work to take the study of the home in contact with the activities of the community.

The class had completed "Child Library" primers published by Lyon and Carnahan and had read with much interest how certain persons help in the homes. They decided on the following for more detailed study: the milk man, the grocery man, the ice man, the postman, the ash man and the garbage man.

The class informational activities included a visit to a dairy store, a local dairy, the stables and the blacksmith shop.

From the Connecticut dairy and food council, members of the class received the following reading and illustrative material: patterns for

handwork; four pictures of four breeds of dairy cows; posters picturing the handling of milk in the city and in the country; "Skags, the Milk Horse"; lantern slides, "Milk in Other Lands"; a motion picture, "The Story of Milk," and a model cow.

After the trip to the dairy and to the dairy store the class organized many reading charts and bulletins based on observation. Many of these were typed and illustrated in a large book which the children made, entitled "The Story of Milk." The processes through which milk goes before it is ready to be used, the use of milk, milk at school and how milk is sold were discussed. The children illustrated the story of milk from the cow in the pasture to the bottle on the doorstep, fastened the sheets together and made a picture film.

Butter making was followed by a cracker and butter party for another first grade.

The children played store, made shelves and a counter, a cash drawer and toy money. The equipment comprised butter boxes, egg cartons, milk and cream bottles. The children bought and sold under 50 cents.

During the hygiene and nature period the class discussed sanitary regulations concerning milk production and sale, pasteurization of milk, sterilization of milk utensils and the care of milk in the home. The class talked about the milkman, his care of the milk and his difficulties in the winter and summer.

The children learned certain facts about milk and milk products and gained some elementary ideas of food values. They learned the necessity of cleanliness and civic values, including courtesy, neatness, promptness and honesty. They gained some knowledge of buying and selling and of food sold in a dairy store. Through a study of community helpers the children learned that men depend on one another.

EDITH B. BRUCKER,
Hartford, Conn.

NEW HEALTH BOOKS AND TEACHERS' MATERIALS

CLEANLINESS is one of the major aims of health education in every grade of our public schools. Educational material in this field is, therefore, eagerly welcomed by all teachers. The Cleanliness Institute, which has been a pioneer in publishing material on cleanliness, has made a collection of fifty posters on cleanliness.[1] This list may be secured by writing directly to the Cleanliness Institute. Those who wish to get copies of any of the posters will then be able to communicate directly with the publishers.

1. New York: Cleanliness Institute.

HEALTH education like every other branch of education is dependent on an understanding of children. In "A Handbook of Child Psychology,"[2] a scholarly

volume, more than twenty of the leading students of child psychology in America and abroad have contributed chapters on child psychology. Jean Piaget writes a unique chapter on "Children's Philosophies"; Joseph Peterson on "Learning in Children"; Lewis M. Terman on "The Gifted Child," and Margaret Mead on "The Primitive Child." The other titles are equally interesting. This volume is a capital book for reference and should be included in all reference libraries. Teachers who have scholarly tendencies will enjoy reading and studying it from cover to cover.

"THE CONQUEST of Typhoid Fever," "Good Habits for Children" and "Good Teeth,"[3] are designed primarily by the Metropolitan Life Insurance Company for their policy holders, but teachers will find them valuable and they may be procured free by writing to the publishers. The pamphlet on "Good Habits for Children" was prepared with the cooperation and advice of the National Committee for Mental Hygiene. Teachers may get many suggestions from it although it was written originally for parents.

2. Edited by Murchison, Carl. Price, $5. Pp. 711. Worcester, Mass.: Clark University Press, 1931.

3. New York: Metropolitan Life Insurance Company, 1932.

THE SUGGESTIONS for energizing health education are rather few in the pamphlet, "Making Health Education Dynamic."[4] Its chief value is in its carefully prepared bibliography organized under specific headings. Teachers in high schools will find this pamphlet worth having.

"HIGH Blood Pressure," "Kidney Trouble," "Indigestion and Constipation," "Glycosuria and Diabetes," "Cancer Control," "Diseases of the Heart and Blood Vessels" and "Overweight,"[5] all of which are about a dozen pages each, contain valuable information in simple language which the layman can understand. A set of them might well be placed on the reading table for advanced classes that take up the subject of disease. Since indigestion and constipation are common troubles which should be combated even down in the lower grades, the booklet dealing with this subject will be valuable for all teachers.

DR. DYMENT, medical adviser of women and director of physical education for women at Stanford University, has prepared "Health and Its Maintenance—A Hygiene Text for Women."[6] It follows the usual conservative plan of dividing the chapters into topics on physiology and anatomy, divisions such as the digestive system and the circulatory system. The book is in no way different from several other books on the market dealing with physiology and hygiene except in those parts that have special meaning for women. Those chapters dealing with hygiene for women are well written and helpful. The author is spiritually minded and deals with her theme in a wholesome way. This book should prove valuable in classes for women.

SEVERAL books on the teaching of health have appeared, but in this rapidly developing field the demand for newer material and a modern point of view is insistent. The latest and best book dealing with health education in a broad way is "Principles of Health Education."[7] It is the product of much of the experimental work which Dr. Turner has been carrying on over a series of years and should prove helpful as a reference book for teachers and teacher training classes.

4. Pp. 10. Indianapolis: Indiana Tuberculosis Association.

5. New York City: Medical Department, 1930.

6. By Dyment, Bertha S., M.D. Price, $3.50. Pp. 472. Stanford University, Calif.: Stanford University Press, 1931.

7. By Turner, Clair E., M.A., Dr.P.H. Price, $2. Pp. 317. Boston: D. C. Heath & Co., 1932.

New Books on Health

FOUNDATIONS OF HEALTH

By Josephine L. Rathbone, Francis L. Bacon and Charles H. Keene. Price, $1.56. Pp. 413. Boston: Houghton, Mifflin Company, 1932.

THIS IS a textbook of hygiene for high schools, written by teachers of wide experience. It provides not only the basic scientific facts as to the anatomy and function of the various parts of the human body but also much helpful advice as to its care. It considers the mind as well as the tissues, and supports its statements by bibliographic references. It is rational, particularly in its discussion of coffee and tea, tobacco and alcohol. This does not mean that it recommends their use to children. It means merely that the authors have tried to evaluate the available evidence and to present an interpretation for boys and girls of high school age.

HYGEIA takes especial pride in the fact that it is quoted repeatedly throughout the book and that it has the warm endorsement of these authors. The book contains an excellent index and a good glossary of technical terms.

MORRIS FISHBEIN, M.D.

MAN AND MEDICINE

By Henry E. Sigerist, M.D., Professor at the University of Leipzig. Introduction by William H. Welch, M.D., Professor of the History of Medicine, the Johns Hopkins University. Translated by Margaret Galt Boise. Cloth. Price, $4. Pp. 340. New York: W. W. Norton & Company, Inc., 1932.

ALMOST no attention is paid at present to the history of medicine in the medical schools of this country, though in Germany lectures on medical history form an important part of the curriculum. Much that is interesting on the subject is therefore concealed, as far as the student is concerned, in the ponderous tomes of the German medical histories. Of recent years, however, there has been a feeling in this country that the student may profitably learn something of the work of the great masters of the past. With the exception of Garrison's book, which concerns itself more with the history of individuals and their contributions than with a general survey, there has been no systematic presentation of the subject suitable for the general reader.

As an introduction to medicine as a whole from the historical point of view, this work of Dr. Sigerist is admirable. He has fused history with an elementary survey of medicine and surgery and produced a book which should be read by every medical student in the early part of his academic career. The book is also well adapted for the intelligent layman who wishes to obtain accurate information on the history of one of the great professions.

The eager consumption by the public of palatable digests of philosophy and the widespread reading of books on physical and astronomical theories with which the magic names of Einstein, Eddington and Jeans are connected form an interesting phenomenon. It is probably subconsciously correlated with the current hopes for some information more definite than that supplied by the theologians concerning the possibility of life hereafter, and on the same principle it is always easy to obtain vast sums of money for astronomical observatories while medical research starves. Practically, however, the present citizen of this globe would be much happier and more intelligent if he knew something about his own body and how to manage it.

Even though this book was first written in German, the translation is extraordinarily good, and the whole discussion is so simply and effectively presented that its publication marks a turning point in the history of medicine. The ancient anatomists live again in the first chapter, but anatomy is only the scaffolding, and Dr. Sigerist calls attention to the astonishing fact that in most countries the medical curriculums do not contain any references to psychology. The student is left to his own devices to secure an understanding of the mind, though he may be taught much useless information concerning the bones and muscles. Freud, of course, has popularized the psychology of disease, but the lay public is perhaps better acquainted with Freud than is the medical student. Passing next to "disease" as an entity, the discussion shows that it is a process, not a condition, and the slow changes which science wrought on the attitude of the middle ages are well brought out, revealing clearly that instead of disease being a punishment from above, as the devout thought, it is rather, from the point of view of modern hygiene, a crime from below.

The physician and the methods by which he works in diagnosis and treatment are next introduced. There is a dramatic description of surgery, beginning with the statement that "the first operation we witness as students is a great experience," and ending with the sound principle, too often forgotten, that "the good surgeon must, above all things be a good physician." The ideals and ethics of the physician are based on the medical ideals of the time in which he lives; yet if he clings too closely to the ideals of yesterday, he will be pushed aside and his powers expended uselessly. "Never before has society presented the physician with so wide a field of activity and so much influential power as today" —a fine ending of a sound book as entertaining as a novel.

FRANCIS CARTER WOOD, M.D.

THE CURATIVE VALUE OF SUNLIGHT

By Edgar Mayer, M.D. Price, $1.50. Pp. 175. New York: D. Appleton & Co., 1932.

THIS BOOK is written by a recognized authority on the use of ultraviolet rays for the prevention and treatment of disease. This book makes no concession whatever to fads. It provides a clear discussion of the use of sunlight in all its forms and also of ultraviolet radiation, its dangers and its value in various types of cases. Dr. Mayer considers the effects of light on the human body in just the way that other substances have been considered by competent physiologists and pathologists. This book is probably the best guide on the subject thus far available. M. F.

QUESTIONS and ANSWERS

Cancer "Cure"

To the Editor:—I have seen in trains and subways in New York City many advertisements that cancer can be cured. In a few cases of which I have personal knowledge, operation was performed, and the result was death. As citizens of this country we all have to look for the welfare of the nation. My wife told me only a week ago that she can cure cancer. It may seem incredible, but my wife swears that she can cure cancer with powders, which are harmless to the patient if he does not have cancer. She guarantees that everybody who has cancer and takes those powders will be restored to health again. This can be done only when the patient has not undergone an operation. If he has been operated on, then all hope is lost for the patient. This is the statement of my wife. Please give us advice as to what we can do in this matter.

J. A. L., New Jersey.

Answer.—The most valuable service that the inquirer could render to humanity in connection with his wife's belief that she can cure cancer would be to persuade her that she is mistaken.

It is hardly likely that a layman will develop a cure for cancer. This disease has been the subject of intensive study by clinical and laboratory scientists for years and years, and they have not yet been able to arrive at even a definite knowledge of the cause, to say nothing of a cure. The best present knowledge is that cancer in its beginning is local and that while it is local it can be cured by timely surgical intervention or by the use of the x-rays or radium. When it is too late for surgery, radium and x-rays sometimes are able to give relief.

If the inquirer's wife starts in to persuade people to try her cure, which in itself may be harmless, she may keep some one from undergoing an operation in time. The deaths following operation occur in those cases in which surgical intervention has been too long postponed. The reason the inquirer's wife attributes these deaths to surgery instead of to the delay is that she is reasoning without a sufficient background of knowledge and experience.

There are two classes of people who offer to cure cancer without surgical measures. The first class includes those who believe they are right, but are mistaken. Such people, when shown the truth, acknowledge their error. The other class includes the quacks who do not care whether they are right or wrong, as long as they can get money out of cancer sufferers. It is quite evident that neither the correspondent nor his wife wishes to belong in the class of quacks.

Pyloric Stenosis

To the Editor:—I am the mother of three boys. The first one was seemingly as perfect a child as could be, until the age of 6 weeks. Then he developed pyloric hypertrophy, as shown by the x-rays, was operated on and passed away. The other boy is now 8 years of age. My baby was born on March 5, 1932; he was as healthy as could be for six weeks, developed pyloric hypertrophy, as shown by x-rays, was operated on, lived two days and then passed away. Could it be anything on my part to have caused this? If I should have any more children, would they be liable to have it? My boy 8 years of age is as strong and healthy as any normal boy. My husband and I are healthy and strong. Is there a known cause for this disease, and a cure?

L. P. C., Arizona.

Answer.—Pyloric stenosis is not an uncommon condition in young babies. There are occasional instances of more than one case in the same family, but we do not have any records of more than two cases. There is no reason why there should not be more children in this family, both because it is unlikely that there would be another child with this condition and because the disease is usually curable.

Pediatricians do not believe that an x-ray examination alone should determine whether a child should undergo an operation. Some of these patients recover with only medical treatment, and in general they should not be operated on unless they do not get along fairly well with medical treatment alone. There is no treatment of any kind that can prevent this condition.

If you have a question relating to health, write to "Questions and Answers," HYGEIA, enclosing a three-cent stamp. Questions are submitted to recognized authorities in the several branches of medicine. Diagnoses in individual cases are not attempted nor is treatment prescribed. Anonymous letters are ignored.

Carbon Dioxide Baths

To the Editor:—Please inform me regarding the carbon dioxide baths, both in this country and in Nauheim, Germany. I would also appreciate information regarding the medical qualities of the carbon dioxide bath treatment.

A. J. K., Texas.

Answer.—Hydrotherapy in cardiac diseases has reached a greater degree of popularity in Germany than in this country. The Nauheim baths, as applied at Nauheim, start usually at 92 F. The stimulus of relatively cool water is enhanced by the carbon dioxide gas occurring naturally in these waters. These baths are helpful in cardiac cases in proportion to the nervous elements present.

The benefits to the patients who visit Nauheim do not arise from the bath treatment alone or from a specific virtue residing in the waters but from the restful, peaceful atmosphere of the place and from the stimulation of great faith in the efficacy of the cure.

In a person immersed in a bath at a lower temperature than the body temperature, the heart's rate becomes slower, and when the warm body lies in cooler water saturated with carbonic acid gas, small globules of the gas are liberated which adhere to the skin, and this becomes red. It is doubtful whether these reactions have any permanent effect on the heart.

The artificial preparation of carbonated baths is not difficult, but they are not much used in this country. This is due to the fact that they should not be given except by careful physicians or well trained technicians. These baths are given in this country under suitable observation at the University of Pennsylvania Hospital, Philadelphia, and at Glenn Springs and Saratoga Springs, New York.

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No home, no matter how comfortable, is so well equipped to furnish the many forms of service—any one of which may be needed instantly and imperatively—as a properly conducted hospital.

People unfamiliar with the wide scope of hospital work think only of the patients in hospital beds. One great hospital in New York City treats in its clinics an average of 1400 visiting patients each day. The hospital of the future will play an even greater part in caring for the health of the people. It will be a medical center which radiates health protection.

National, State and County hospitals are supported by taxation. A few private hospitals and sanatoria are on a self-supporting basis. But the great majority of private hospitals are dependent upon endowments and sustaining contributions for bare necessities — proper equipment and needed surgical, medical and nursing staffs.

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Ménière's Disease

To the Editor:—I have an ear disturbance which has been diagnosed as Ménière's disease. What are the probable causes and what treatment is beneficial? Could a ruptured appendix and its subsequent removal have any connection with the ear trouble? May one expect the attacks of the disease to become fewer and less violent or to increase in number and in violence? On what does a complete recovery depend?

M. H., Michigan.

Answer.—True Ménière's disease is a hemorrhage into the internal ear. It is associated with nausea, vomiting, vertigo, a sense of falling, and total deafness in the affected ear. If these symptoms appear suddenly and last for minutes, hours or even days but the hearing is still preserved on that side, the patient may be having the symptoms of Ménière's disease without having had any hemorrhage.

In the event that the symptoms mentioned are present but the hearing is still preserved, the probability is that there is some focus of infection elsewhere in the body, absorption from which is affecting the internal ear. An infected appendix might produce the symptoms of Ménière's disease; these symptoms should disappear slowly after the patient has recovered from the appendicitis. Other possible sources of the condition may be diseased tonsils, teeth, nasal sinuses, bowels and gallbladder.

If the condition is true Ménière's disease, the attacks will probably continue in lessening severity until the ear is entirely destroyed, at which time they will cease. In the event that the symptoms are produced by disease elsewhere in the body, the symptoms referred to the ear will disappear after the cause has been removed.

Eyestrain

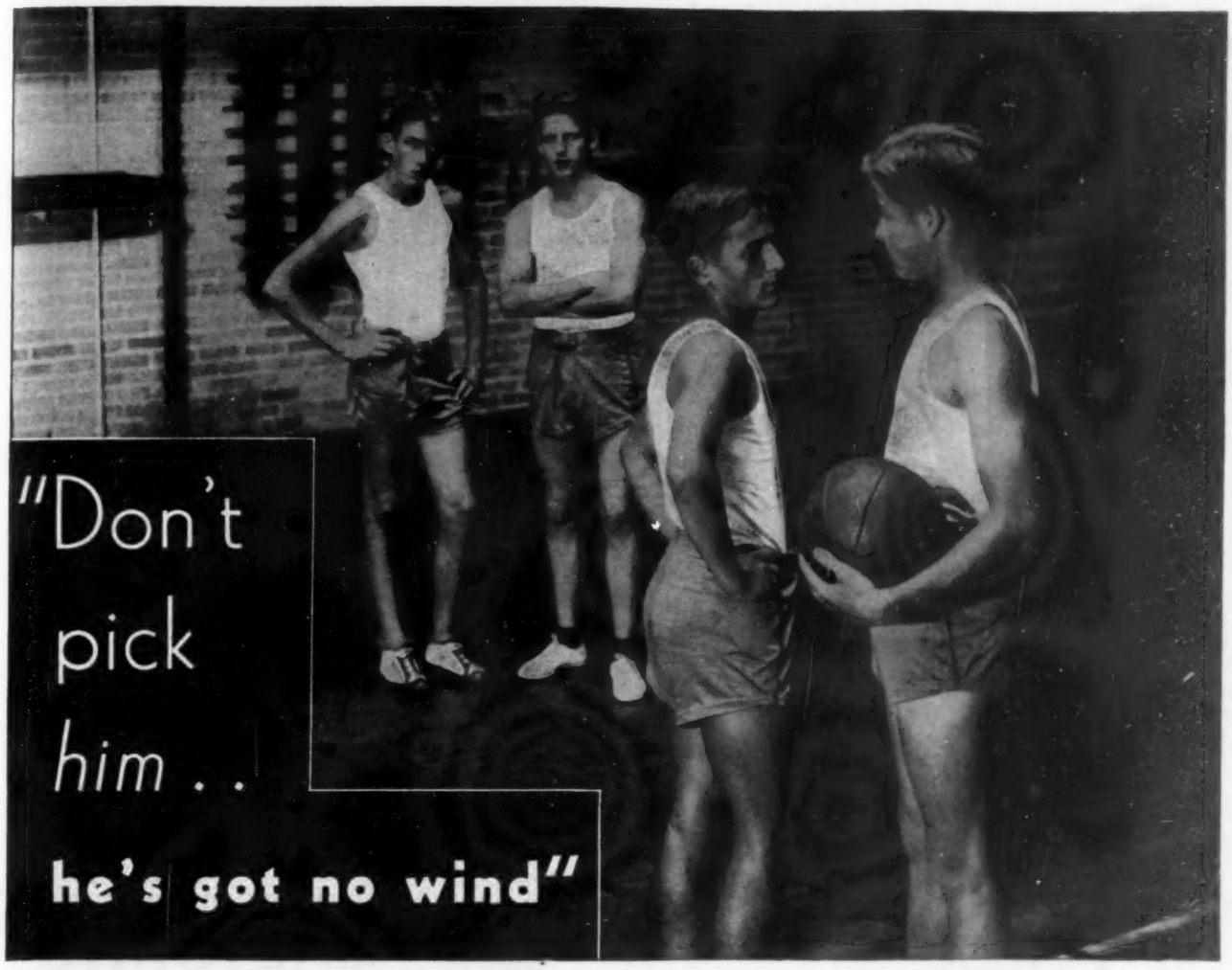
To the Editor:—I should like some information on the care of the eyes. Is it possible to correct or prevent eyestrain without the use of glasses?

L. S., Ohio.

Answer.—Whether eyestrain needs glasses for its relief can only be told in an individual case by an examination of the eyes.

Errors of refraction that necessitate the use of eye glasses are among the most common causes of eyestrain and the resulting symptoms.

The eyes should be carefully examined by a physician, who will discover the cause of the eyestrain and advise as to the remedy.



HE'S a "swell" fellow. His schoolmates all like him, but they don't want him on their teams . . . He doesn't have the "fight"—seems to tire right away. And lately he hasn't enjoyed amusements requiring exertion. His grades have fallen, too.

The family thinks that maybe "he has grown too fast." But such conditions can indicate a grave danger—tuberculosis, the leading cause of death between the ages of 15 and 45.

One of the worst characteristics of tuberculosis is that it strikes fastest, hardest, deadliest in adolescent and college years. However, early discovery is an effective weapon against this disease, for prompt treatment then is usually successful. This is one of the strongest reasons for the annual health audit. For through regular examination, tuberculosis, like many other diseases, can be discovered in its controllable stages.

Since no other means of detecting tuberculosis is so positive and accurate as x-ray examination, radiographs of the chest should be included in every complete health audit. From childhood throughout life it should be your regular routine to visit your physician once a year . . . to have radiographs made of all organs and parts that may be suspected of improper function.

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Kienböck's Disease

To the Editor:—I have had pain and gradual stiffening of my left wrist for about eighteen months. After consulting several doctors, I finally had an x-ray examination of the affected wrist, and the trouble was diagnosed as Kienböck's disease. Please tell me the cause of this disease and whether or not there is any cure for it except surgical intervention. If necessary to resort to surgery, would it be a serious operation? L. M., Michigan.

Answer.—The cause of Kienböck's disease is usually an injury. So far as treatment is concerned, if nonoperative means such as splinting and physical therapy are unsuccessful, surgery usually is successful. It is not considered a serious operation in the hands of a trained surgeon who is familiar with bone and joint surgery.

In one of the latest articles it is stated that there appears to be definite justification for the suggestion that the degenerative changes in the bone are closely associated with its poor blood supply, for the bone occupies a central position in the joint and lacks the liberal blood supply that is present in the other wrist bones.

Fracture of the semilunar bone in the wrist is not uncommon, though often unrecognized, and the resulting local reaction is treated as a sprain without sufficient immobilization. The process of repair in the damaged bone is retarded by the defective blood supply and the poor reactive powers of its cartilaginous covering.

A slow progressive degeneration (Kienböck's disease) with absorption of necrotic bone and fibrous replacement then takes place during a varying and often long quiescent interval, which is ultimately followed by deformation of the bones, with recurrence of the local symptoms and continued disability. A similar local reaction may result from repeated minimal occupational irritations, and in exceptional cases may be caused by low-grade infection.

Removal of Corneal Scars

To the Editor:—Please inform me in regard to the removal of opacities or scars caused by corneal ulcers. J. R. C., Maryland.

Answer.—An old deep scar of the cornea cannot be supplanted by clear tissue if it is removed. It is sometimes feasible to remove superficial scars. As yet there is no good method for transplanting the cornea from one person to another.

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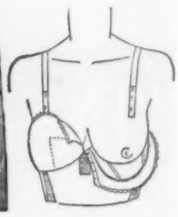

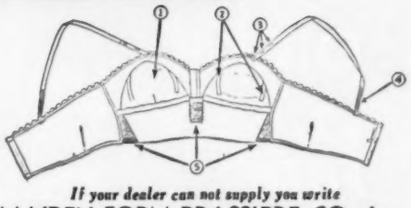

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Removal of the Coccyx

To the Editor:—In October, 1930, while in the fourth month of pregnancy, I was hit by an automobile and thrown to the ground, striking the end of the spine. X-ray pictures were taken, but no fracture was shown. My doctor said that little could be done on account of my condition. My back has pained me a great deal since then, and even now the coccyx hurts when I sit and when I lift anything heavy. My doctor says that the coccyx was bruised and had become enlarged and fixed. He advises its removal. Would the removal make any difference in my physical abilities? Would I be considered normal? What is the function of the coccyx? Is it part of the spine? What treatment would you advise? Could any complications arise if I had it removed?

R. M., Pennsylvania.

Answer.—The coccyx is a small bone at the end of the spine. In infants and children it has a cartilaginous connection with the sacrum and is movable, but in early adult life it becomes ossified and firmly attached to the sacrum. Fractures and dislocations, especially in labor, are not at all uncommon and lead to pain.

The coccyx has no special function except that it serves for the attachment of some of the muscles that form part of the floor of the pelvis. The physician should advise whether it ought to be removed.

Diet During Pregnancy

To the Editor:—Should a pregnant woman eat a great deal of meat, or is it better to abstain from meats and eat more vegetables and fruits? Is ergot harmful if given during labor?

H. N. L., Oregon.

Answer.—There is no objection to a moderate amount of meat, that is, two or three times a week, or even as often as once a day, if one is accustomed to it. It is best always to be advised by a doctor who can make examinations at intervals during the pregnancy. Conditions might arise that would indicate a special diet. We have published a pamphlet "A Child Is To Be Born" in which, among other things, there is a discussion of the diet of the pregnant woman.

As to ergot, there is harm in giving it unless there is a clear indication for it. It is usually administered for conditions arising in the last stages of labor and in the period immediately after the child is born. The physician in charge must determine whether or not ergot should be given.

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City_____ State_____

COMMON COLD HEADS LIST OF RESPIRATORY DISEASES

"Now that winter is approaching it may not be out of place to consider the prevention of one group of diseases which have a great deal to do with filling Charon's boat, to say nothing of causing more or less continuous ill health and discomfort in many of those left behind. Age suffers, adult life suffers, but the child suffers most of all." As one might easily guess, Dr. John Ruhräh is writing about the respiratory diseases and, in particular, the common cold.

Because the common cold is frequently the forerunner of more serious diseases, its prevention is of great importance.

The common cold is an infectious disease transmitted from one person to another. The loss of time from it in industrial circles has lead manufacturers to give large sums of money for its study, but the despised common cold sits like a sphynx guarding its secret. "We might well imagine it twiddling its fingers with its thumb on its nose, sneering at us mere mortals," Dr. Ruhräh continues.

And what do we do about it? Almost nothing, except the little that the authorities do for us. Some of our modern school buildings and some of our places of amusement are better ventilated, yet for the most part our ventilation is remarkable only for its inefficiency. Children go about overclad, shutting out the fresh air and sunlight in a medieval fashion, and in many other ways doing all in their power to make themselves more liable to infection.

Lack of proper nourishment is one factor that may lower the resistance of a child to a cold. Too much candy, too much starchy food, too little protein and too few vitamins tend to make the body more liable to infection just as these conditions interfere with proper growth and lead to bad teeth and poor blood.

Do not overheat the child with clothing. Too much is really worse than too little. Do not overheat the home and let it lack moisture. Avoid all contact with those who are ill. These suggestions from *The Trained Nurse and Hospital Review* are aids in preventing respiratory diseases.

Modern man may be said to wear his Achilles' heel in his mouth, since 92 per cent of all deaths from communicable disease are caused by micro-organisms which enter and leave the body through the mouth and nose.—*The Cleanliness Journal.*

To ease the task of enlightenment

This message is sent to parents and guardians—in a spirit of constructive helpfulness

THIS year—some five million young girls between the ages of 10 and 14 will face one of the most trying situations in all the years of young womanhood.

This year—some five million mothers will face the most difficult task of motherhood.

Thousands of these mothers will sit down in quiet rooms—and from that intimacy so characteristic of today's mother and daughter—there will result that understanding so vital to the daughter of today—the wife and mother of tomorrow.

There will be other thousands of mothers—courageous—intimate in all things but this. There will be thousands too timid to meet this problem—and it will pass—but with what possible unhappiness...what heart-breaking experience.

To free this task of enlightenment from the slightest embarrassment—the Kotex Company has had prepared an intimate little chat between mother and daughter. It is called "Marjorie May's Twelfth Birthday."

In this book—the subject has been covered completely . . . in simple understandable form. It is accompanied by a simple plan affording the child complete privacy.

Parents, guardians or teachers who wish copies of this little book will receive a copy without cost or the slightest obligation by writing to Mary Pauline Callender, Room 2139A, 180 North Michigan Avenue, Chicago, Ill. It will come to you in a plain envelope.

STREET URCHIN CAN LEARN OF BEAUTY DURING CONVALESCENCE

The same street urchin who enters the door of a museum or art gallery merely because it is open, who may be destructive and lack so-called appreciation of the beauty and historical value of the articles contained therein may learn a great deal about beauty within the ward of a hospital.

Children who have never known the companionship of animals and have never passed delightful hours outdoors in woods or meadows cannot be expected to appreciate such beauty. But while the child is in the hospital convalescing, stories of dogs, of kittens and of other animals, stories of the outdoors and even fairy tales which will seek out the child's imagination help to stimulate the child to an appreciation of beauty.

The Trained Nurse and Hospital Review, the source of this suggestion, comments: "If motion pictures, comic supplements, loud speakers, the nightmare of vocal noise in our streets have so dulled the imagination of modern children that they are unresponsive to these tales of fairyland, to flowers, to animals, then it seems , . . that childhood has lost its most precious heritage, and it is time that the coming generations had a different start. . . . Perhaps a term in the hospital may become an angel in disguise for the little patient, if at that time, his evolving mind can be to some extent attuned to beauty."

HEADACHE IS SYMPTOM OF MANY DISEASES

Headache is a complaint that few persons have not experienced. In fact a headache may be the first noticeable symptom in practically any disease listed in a textbook of medicine and in many conditions dealt with by surgery. A doctor of wide experience lists at least thirty important causes of headache, of which those occurring with the greatest frequency are (1) acute cold, (2) constipation, (3) poor hygiene and (4) nervous conditions and eyestrain. Owing to the manifest danger of self drugging, with its insidious habit formation, it is wiser for the patient to let the doctor find the source of the difficulty and remove it if possible, according to a report from the U. S. Public Health Service.

An annual physical examination is the best insurance policy in the world.—Pennsylvania's Health.

New values of bran in the reducing diet

WOMEN take stoutness seriously. They regard it as an enemy of youthful good looks. But haphazard dieting — undertaken without a doctor's advice — can prove dangerous.

Reducing diets often lack fiber, iron and vitamin B. Inadequate fiber frequently results in constipation, with its attendant evils. A deficiency of vitamin B or iron may cause loss of appetite and even nutritional anemia.

New scientific findings show that bran supplies these three dietary essentials. A recent investigation* has established the fact that one ounce of bran (about 30 calories) will supply vitamin B equivalent to that in one very large apple (100 calories) or 5 ounces of orange juice (60 calories).

In addition, Kellogg's ALL-BRAN furnishes fiber to exercise the intestines, and further aid regular elimination. ALL-BRAN also brings twice as much food-iron as an equal amount by weight of beef liver.

The fiber in ALL-BRAN has been made finer, softer, more palatable by special processes of cooking, flavoring and crumbling. This fiber is similar to that found in lettuce, spinach and other leafy vegetables. Within the body, it absorbs a large amount of moisture, forming a soft mass which gently clears out the intestinal tract.

ALL-BRAN is not fattening. It helps satisfy appetite — without adding very many calories to the diet. Except in cases of intestinal conditions where any form of fiber would be inadvisable, ALL-BRAN may be safely used. Equally delicious as a cereal, or in fluffy bran muffins, waffles, omelets, etc. Made by Kellogg in Battle Creek, Michigan.

**Wheat Bran as a Source of Vitamin B,* by Rose, Vahlteich, Funnell and MacLeod, pages 369-374, Journal American Dietetic Association, March, 1932.

"Good Will to Men"

Christmas! Season of laughter and joy. Gifts and good will to all—and the opportunity to combine both by using Christmas Seals. For Christmas Seals help prevent, find, and cure tuberculosis all year round. Use them generously on all Christmas packages, gifts, cards and letters, and let your business correspondence proclaim, "Good health to all."

THE NATIONAL, STATE AND LOCAL
TUBERCULOSIS ASSOCIATIONS
OF THE UNITED STATES

BUY CHRISTMAS SEALS

Representatives Wanted • • • • Write Hygeia

The A.P.-UPLIFT

U. S. Pat. 1,702,922 —Invented by Mme. Poix to create the stylish upward contour; to relieve pain and remove cause of many bust troubles; also for pre-natal and nursing periods.

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103 Madison Ave.
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If Your Child Could Explain to You

what helps him to behave rightly, you would never have a moment's trouble with him. Reading this sane, pleasant little booklet by two trained specialists is almost the same thing!

"Training the Child to Obey"

by Smiley Blanton and Margaret Gray Blanton

15c *Paper Cover, 22 pages*
AMERICAN MEDICAL ASSOCIATION
535 N. Dearborn St., Chicago

PLAYGROUNDS AND CLUBS PREVENT CRIMES OF YOUTH

Viewing his daily police line-up of offenders from 18 to 25 years of age, Edward P. Mulrooney, police commissioner of New York City, declared that the same amount of money now spent in maintaining criminals in prison could if expended on organized playgrounds and boys' clubs keep an infinitely larger number out of the ranks of crime. Through this means the city child would have the play happiness he is entitled to, like any other child, the commissioner added.

Interviewed by *Recreation,* the organ of the National Recreation Association, he said, "With finances in all cities the way they are, I don't suppose we can look for new capital outlays on parks and open spaces, but I don't see eye to eye with those who begin with children's playgrounds when they start budget cutting. Of course, they soon find they are wrong in doing so, but a little reflection in advance would have told them that."

In the conditions faced by the child in the street, the commissioner finds the foundation of the gang spirit. "What is needed is the team spirit," he maintains. "We know that the gang is the nucleus of crime. And we know too that the boys' club, the playground have the opposite tendency. That is why we are for wholesome recreation as the first move toward keeping boys, yes and girls, of 18 out of the morning line-up."

PURE WATER CONQUERS IN TYPHOID WAR

Improvements in the water supply throughout the state of New York have been clearly reflected in the reduction in the typhoid death rate in that state. During the twenty-two year period prior to 1906 the average death rate from typhoid was 23.4 per hundred thousand population. During the last five years the rate has been less than 2 per hundred thousand population. Had the death rate before 1906 prevailed during the last five years, there would have been annually more than 2,000 additional deaths and more than 20,000 additional cases of typhoid in that state alone. It has been aptly said that "without water we could not have life and without pure water we could not have health."

A sane mind consists in a good digestion of experience.
—Clifford Allbut.

SLEEP

(Continued from page 1105)

after the sacred hour has struck. After all, children are as susceptible to excitement as are adults, and if they feel there is enough excitement going on around them they will make every effort to stay awake to enjoy it. I have noticed that, although no amount of light seems to make any difference to my children, if their beds are by an open window so that they can see what is going on in the world outside they will hold their eyes open to watch. A blank wall in front of them, no one in the room to look at, and silence in the house all make life dull and uninteresting, however, and sleep takes on a charming lure. But once they are asleep, the elders are free again to sing, dance and laugh, and they may do so with free consciences, knowing that the children will not wake.

It may seem elaborate and complicated to plan one's life so that the children greet a nap in the middle of the day with enthusiasm, so that they are kept interested in peaceful amusements after 6 o'clock and so that the house and especially their own rooms are quiet and without distraction from 7 until 7:15, but it is not half so elaborate and complicated as the care of a nervous, tired child. It may sometimes be inconvenient not to play the radio full force for those fifteen minutes after the children have gone to bed, but that is not nearly as inconvenient as having the child wake up at intervals during the night because he is overexcited and has not been able to sleep soundly. It may take a certain amount of planning and tiresome routine—and it surely does take self control—but so does everything that has to do with the rearing of the next generation; and after all, the greatest possible good to the child, in this particular instance, means, in the long run, a greater accommodation of one's own personal convenience.

CALENDARS AND CARDS

A hanging calendar and distinctive and artistic Christmas cards are being presented by the National League of Nursing Education at 450 Seventh Avenue, New York City. Every nurse knows that the League depends on the proceeds of the calendar sale for maintaining its activities.

Within the calendar will be found quotations from some of the modern educators and philosophers and from some of the old writers. The Christmas cards are sketches on nursing subjects.

WHAT CAN I GET *for a* CHRISTMAS GIFT?

How frequently this question comes up and how frantically we chide our minds and browse through the advertisements for that particular gift.

Solve the Problem

With a subscription to Scientific American and if you desire to make it more attractive still, add The Annualog—that little volume so crammed full of valuable and interesting information.

SCIENTIFIC AMERICAN One Year $4.00

Two Subscriptions, $7.00 Three Subscriptions, $10.00

ANNUALOG (Retail Value $1.25) With Each Subscription Only 25c Extra

Christmas Subscription Coupon

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Send One Year's Subscription to the addresses given herewith, for which I enclose .....

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Only

FULL STRENGTH

baking powder is

SURE-RAISING

DAVIS accepted by American Medical Association

(COMMITTEE ON FOODS)

ALWAYS fresh—always sure-raising—absolutely pure and wholesome! That's Davis Baking Powder . . . accepted by the American Medical Association (Committee on Foods).

In Davis Baking Powder its full-raising strength is *sealed in*. The new can brings Davis Baking Powder to you as fresh and as full of raising strength as the day it was packed. Fresh baking powder means "full strength" baking powder. It insures successful baking results.

Furthermore, Davis Baking Powder is economical, too—reasonable in price. No one should ever pay more than the price of Davis to get the best.

Insist on Davis. It is *wholesome—pure—dependable*—with a double rising action. It's easy-to-open, easy-to-close cover prevents wasteful spilling. Use Davis Baking Powder for sure, dependable baking results.

This Seal of Acceptance is your guarantee of the unquestionable purity of a product and the truth of its advertising claims. Davis Baking Powder is accepted by the American Medical Association Food Committee.

ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

DAVIS

BAKING POWDER

HIGH GRADE MILK HAS EIGHT DISTINCT ADVANTAGES

Eight reasons for producing high quality milk which the dairyman cannot afford to overlook and which will ultimately result in financial gain, according to the Indiana state board of health, are as follows:

1. It protects against loss from sour, off-flavored or otherwise low quality milk.
2. It assures a market: the producer of inferior milk is the first to be discontinued when patrons are dropped.
3. It makes a better manufactured product which means larger returns to the producer.
4. It increases the selling price: the public is becoming more discriminating and will pay a better price for better milk and better milk products.
5. It increases consumption of milk and milk products and creates a greater demand for them.
6. It maintains the health of the herd: tuberculin and abortion tests protect the herd against disease. Diseased cows are not profitable producers.
7. It increases milk flow because a clean barn and surroundings and proper care of the herd tend to promote good health and comfort of the herd.
8. It safeguards the health of the milk consuming public and of the farmer's own family.

FOOD PATHWAYS TO GOOD HEALTH

Food ways to health are enumerated by the Massachusetts department of public health:

1. Begin and end the day with a glass of water and drink at least four glasses during the day.
2. Eat a breakfast that will prepare you for the morning's work.
3. Eat slowly and chew food well. Have regular hours for eating.
4. Drink milk at every meal if possible.
5. Eat some cereal every day.
6. Eat two vegetables, one raw, in addition to potatoes each day.
7. Eat one serving of fruit every day and more if possible. Eat only fruit that has been washed.
8. Have dark bread at one meal a day at least.
9. Eat an egg a day when possible. Meat is not essential every day.
10. Wash the hands before eating.

Why should'st thou die before thy time?—*Eccl. 7:17.*

Schools and Camps

Schools for Backward Children

Beverly Farm (INC.) — *A Home and School for Nervous and Backward Children and Adults*

220 acre farm. 7 bldgs. New school gymnasium. 35th year. Industrial and school training given. Dept. for birth injury cases. GROVES BLAKE SMITH, M.D., Supt. **Godfrey, Ill.**

TROWBRIDGE TRAINING SCHOOL

Home school for nervous, backward children. *Best in the West.* Beautiful buildings. Spacious grounds. Experienced teachers. Individual supervision. Resident physician. Enrolment limited. Endorsed by physicians, educators. Booklet. E. Haydn Trowbridge, M.D., 1810 Bryant Bldg., Kansas City, Mo.

Wanted

Representatives to introduce

HYGEIA

Generous cash commissions are paid, and the work may be full or part time. An excellent way to add to your regular income. *Send for details.*

HYGEIA, 535 N. Dearborn St., Chicago

Dearest Mother. . . .

You know how it is with all of my nice relatives when Christmas time comes. They get me wonderful things but this year I want a Snuggle Rug, and I have good reasons, too.

I like to look nice and there isn't any way that you can dress me up any better for the car or for my carriage than to put me in a Snuggle Rug. Just look at the picture above. Doesn't that baby look pretty and comfortable? You know, when I am all bundled up in blankets I am terribly uncomfortable.

Here is another way you can help me this Christmas. Write to the address below and get the book, "Sleep Baby Sleep." It tells about the Snuggle Bunny crib cover which keeps me covered all night and gives you lots of undisturbed rest.

If all of my nice relatives have waited too long, I think if you would tell them about it, they could find a store where Snuggle Rug is sold. A Snuggle Rug can be bought for as low as $1.95.

. . . . . *Your Baby*

Mothers—Write for this FREE Book!

© 1932, S.R.Co. It tells you how to develop proper sleeping habits for baby. Address SNUGGLE RUG COMPANY, Dept. 1232H, Goshen, Indiana

SNUGGLE RUG

WHEN 2 AND 2 MAKE 4

it's time to plan for 20

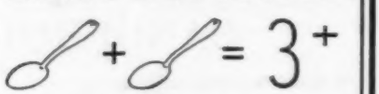
THOSE first four of childhood's twenty teeth tell of important processes at work in baby's tiny self. This bone-building activity should be carefully fostered. If there is any halt in it, your baby may be marked for life with poor teeth and cramped jaws. Scott's Cod Liver Oil should be one of your first considerations to help safeguard those precious little teeth.

Vitamin D is essential in the correct growth of bones and teeth . . . and Scott's Cod Liver Oil is extra-rich in this vitamin. In addition it contains a wealth of vitamin A, considered by good authorities as useful in helping build up the general resistance of children and adults.

Three-teaspoonfuls-per-day* of ordinary cod liver oil has been found the necessary medicinal dose. *But two teaspoonfuls daily* of Scott's Cod Liver Oil yields a higher vitamin intake than this three-teaspoonful dose of ordinary cod liver oil.* Yet Scott's Cod Liver Oil is cheaper. . . . Available at all drug stores in three convenient sizes at 35c, 60c, and $1.

★ SCOTT'S TWO-SPOONS-A-DAY

Efficient and Economical



THE Council on Pharmacy and Chemistry of the American Medical Association has determined that the average prophylactic and curative dose of cod liver oil is one teaspoonful (4 c.c.) three times daily. This assumes an oil of such potency that 4416 U.S.P. vitamin A units and 1468 A.D.M.A. vitamin D units are taken daily.

As compared with this, Scott's Norwegian Cod Liver Oil has extra-potency (1000 U.S.P. vitamin A units and 250 A.D.M.A. vitamin D units per gram). Therefore two teaspoonfuls taken daily yield a total intake of 7360 U.S.P. vitamin A units and 1840 A.D.M.A. vitamin D units.

SCOTT'S NORWEGIAN COD LIVER OIL

PLAIN AND FLAVORED

Made by Scott & Bowne, Bloomfield, N.J. *Sales representatives,* Harold F. Ritchie & Co., Inc., New York City

ACCEPTED AMERICAN MEDICAL ASSN.

Answers to Cross Word Puzzle
(Page 1130)

Leaf

ACROSS	DOWN
1. Cow.	1. Car.
4. Cape.	2. Opens.
5. Rend.	3. Went.
7. N. T.	6. Eye.
8. Yes.	9. Eat.
10. E. A.	

Apple

ACROSS	DOWN
1. Leo.	1. Lane.
5. Answer.	2. End.
8. Band.	3. Os.
10. Ends.	4. Den.
12. N. E.	6. Wed.
13. M.D.	7. Rd.
14. W. A.	9. Ants.
15. Sin.	11. Son.
17. Assent.	13. Man.
20. We.	14. Weed.
21. Inn.	16. Inner.
22. Din.	18. S. W.
23. T. R.	19. Tin.

IS YOUR CHILD SCHOOL-DULL AND LIFE-BRIGHT?

"School-Dull and Life-Bright!" Does this title apply to your son or daughter who brings home barely passing or even failing report cards occasionally and yet is neat, thoughtful and interested in other avocations? Does your child seem bright in daily activity outside the schoolroom? Then, parents, do not worry him. Unfortunately, school-bright has been interpreted as college-bright. Not all children are suited for college. The capacities endowed by Nature are rarely, if ever, all possessed by any one person. Your girl with a liking for stenography may be school-dull but highly successful in her future work. Your boy with a mechanical turn of mind will be life-bright, but he may have hard sledding while he is in school.

These rather novel yet encouraging ideas are set forth by E. W. Butterfield in the *North Dakota Teacher.* He concludes:

"All who reach the high school door are bright boys and girls, bright in social values or bright in the two great commandments, or bright in manual skills, or bright in the knowledge of art and the production of beauty, or bright in the ability to bear silently and without complaint the great burdens of life, or they may be school-bright alone. Were I cheer leader, I would now give three hearty cheers for those who are just school-dull and most of you would join me in this shout of self-appreciation."

Another KLEENEX PRICE REDUCTION

Use Kleenex for handkerchiefs! For removing cosmetics, for dusting, for polishing—for everything!

25c

NOW use all the Kleenex you want! Be as lavish as you like! For the price is once more reduced. That big box—for which you paid 50 cents a year ago—35 cents six months ago—now costs but 25 cents!

At this new low price, no one need risk germ-filled handkerchiefs during colds. A Kleenex Tissue may be used once, then destroyed. There is no self-infection. No spreading germs to others as when soiled handkerchiefs are used.

Softest—yet strongest

Kleenex is made of softest rayon-cellulose and is more absorbent than linen. Though the softest tissue available, it is also the strongest.

Note the Kleenex products listed below. Every one has a place in your home. The price is low—try them all!

1. REGULAR KLEENEX comes in a variety of shades, 180 sheets for only . . . . 25c.
2. ROLLS OF KLEENEX are convenient to hang in bathroom or kitchen. In pink or white . 25c.
3. 'KERFS for dress-up handkerchiefs and tea napkins. Four thicknesses of tissue, smartly bordered . . . . . 25c.
4. LARGE SIZE KLEENEX is 3 times the regular size. Splendid for removing face creams and for household uses. Formerly $1, now . . 50c.

KLEENEX *disposable* TISSUES

Cereal for baby

GERBER'S Strained Cereal is made of finely ground whole-wheat and hulled oats, with added wheat germ for additional vitamin B. Cooking in fresh, whole milk increases both the palatability and the nutritive value of the cereal. The straining removes the coarse bran particles *after* their food value has been absorbed—and gives the cereal the smooth, uniform texture most acceptable to baby. No seasoning is added. The strained cereal is hermetically sealed, and long-cooked by the Gerber process which pasteurizes the milk and assures lasting purity. Gerber's Strained Cereal is ready-to-serve. No further cooking is required. Simply warm and serve, or add salt or sugar as baby's doctor directs.

Vegetables for baby

WHEN baby is ready for vegetable feedings, remember the Gerber Strained Vegetable Products—made from the finest garden-fresh vegetables, and prepared with equipment which assures the utmost uniformity and safety, and conserves important vitamin and mineral salt values. Straining through finely perforated monel metal removes indigestible crude fibre, and gives each product a smooth, even texture. Gerber's Strained Vegetables are unseasoned, ready-to-serve. They save you hours of time and effort—but most important of all—they are *better for baby.*

Ask Your Doctor—

Your doctor can best advise whether you should add sugar or salt, or serve Gerber's Strained Cereal unseasoned. He, too, can advise when to start baby's daily vegetable feedings, and which of the eight Gerber Strained Vegetable Products are best adapted to your own baby's needs. Ask for the Gerber Products by name.

ACCEPTED AMERICAN MEDICAL ASSN

At Grocers and Druggists Everywhere—15c

Strained Cereal
10¼ oz. can

Strained Carrots
Spinach—Prunes
Tomatoes—Beets
Green Beans—Peas
Vegetable Soup
4½ oz. can

Gerber Products Co.
Fremont, Mich.
In Canada—Fine Foods of Can., Ltd.—Windsor, Ont.

Gerber's
STRAINED CEREAL

CHRISTMAS CONFECTIONS
(Continued from page 1080)

STEAMED FIG AND RAISIN PUDDING

1 cup walnut kernels
1 cup seeded raisins
1 cup uncooked dried figs
2 tablespoonfuls molasses
1 cup sugar
½ cup shortening
2 eggs
½ cup milk
2⅓ cups flour
3 teaspoonfuls baking powder
1 teaspoonful soda
½ teaspoonful cloves
¼ teaspoonful salt

Wash the figs and remove stems. Put the figs through a food chopper with raisins and nuts. Cream the sugar with shortening, add molasses, beaten eggs and milk. Add chopped ingredients, then flour sifted with baking powder, soda, cloves and salt. Beat the mixture thoroughly. Pour into a greased mold and steam for an hour and a quarter. Serve the pudding hot with a hot pudding sauce.

FIG MALLOW

1 cup dried figs
2 tablespoonfuls granulated gelatin
1 cup water
2 cups sugar
Few grains salt
1 teaspoonful vanilla

Wash the figs, dry them on a towel, and cut them into pieces. Soften the gelatin in ¼ cup of water. Add the remaining water to the sugar and salt, and boil to a soft ball stage at 236 F. Pour over the gelatin and beat the mixture until it is cold and fluffy. Add the figs and vanilla and mix the ingredients thoroughly. Pour the mixture into a shallow pan which has been rinsed with cold water and allow it to set overnight. Remove the candy from pan, cut it into squares and roll it in powdered sugar.

Live every moment you can in the open. Observe, remember, and be curious enough to search for information about what you see and hear of nature in your play and on your hikes through fields, woods and mountains! And your life will be tremendously enriched by this intimate acquaintance with the great outdoor.—*Martin Johnson.*

Protect Your Child's Hearing with KNOWLEDGE!

YOUR HEARING

How to Preserve and Aid It

By *Wendell C. Phillips, M.D.* and *Hugh Grant Rowell, M.D.*

A new book of **concrete advice** by two noted specialists, describing the mechanism of the ear, giving symptoms of trouble, causes of affliction in children and adults, effectiveness of various treatments, hygiene for prevention of deafness, mechanical aids, etc. **Illustrated. $2.00.**

D. APPLETON AND COMPANY
35 West 32nd Street New York City

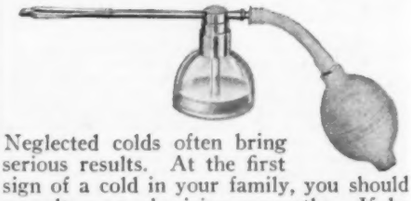
For the Young MOTHER

Designed to allow for the development of the expectant mother, this Camp Support (No. 3011) is especially made to meet the needs of the young woman who is to become a mother for the first time. It provides proper uplift to the organs and sacro-iliac support as well as symmetrical body lines. Endorsed by leading physicians.

Write for special information.

CAMP
Physiclogical Supports
S. H. CAMP AND COMPANY
Manufacturers, JACKSON, MICHIGAN
Chicago 1056 Merchandise Mart
New York 330 Fifth Avenue

COLDS ARE DANGEROUS



Neglected colds often bring serious results. At the first sign of a cold in your family, you should consult your physician promptly. If he prescribes a solution to be sprayed in the nose or throat, ask for a DeVilbiss Atomizer when you get the prescription filled. You can depend upon a DeVilbiss Atomizer to apply the medicament gently and thoroughly. For over 40 years, the medical profession has used DeVilbiss Atomizers and recommended them to patients.

DeVilbiss

★ ★ ★

The DeVilbiss Company, Toledo, Ohio, headquarters for atomizers and vaporizers for professional and home use.

Accepted by the Council on Physical Therapy of the American Medical Association

THIS TAB
protects
THE PURITY OF BABY'S FOOD

WITH this new Hygeia Nipple, your fingers need never touch the sterilized inside surface of the nipple. Just grasp the tab and slip the nipple on or off in a moment!

This new nipple is just one of the sanitary features of the famous Hygeia Nurser . . . the Nurser endorsed by nurses and physicians. Used in more than 2000 hospitals. The wide-mouthed bottle is easily cleaned, easily sterilized, easily filled. The Hygeia Nipple is shaped like mother's breast.

GUARANTEE: Each Hygeia Cell is guaranteed to withstand all temperature changes encountered in its regular use. Any defective Cell will be promptly replaced.

Hygeia Nursing Bottle Co.
Buffalo, N.Y.

Hygeia
THE SAFE
NURSING BOTTLE

STUDY TELLS WHY YOUNG WOMEN DIE FROM TUBERCULOSIS

The tuberculosis death rates have not declined among girls from 15 to 25 to nearly the extent that they have among boys. This is a problem that has been investigated recently.

For instance during the period from 1900 to 1927 the tuberculosis death rate decreased 61 per cent. During the same period, for boys between 15 and 19 years of age the rate dropped 58 per cent and for males aged 20 to 24, the rate decreased 64 per cent. But for girls between 15 and 19 the decrease was 46 per cent and for young women from 20 to 24 years the decrease was only 53 per cent.

Many reasons have been advanced for this condition; "flapper" clothing, dieting, jobs and other factors in the lives of the present-day girls have been blamed.

A recent study made in Detroit of 180 girls seems to indicate by way of conclusion that one has to look further than this to understand why tuberculosis is a more serious problem for young women than for young men.

The study showed that up to the age of 17 no marked disparity in the incidence of tuberculosis was evident between the sexes. The study further concluded that the income of the family did not bear any influence. The death rate was accentuated among young females among the Negro population. Employment exerted little if any influence.

The emotional tension, however, and the ambition for popularity reflected in the forms of recreation enjoyed, together with insufficient rest, probably combined to predispose to tuberculosis in a considerable number of cases.

There was evidence of a distinct tendency toward marriage and child bearing at an early age. Pregnancy during the age period before 20 was common and closely linked up with the onset of disease. This constituted the most important single causative factor in the mortality of this group.

The strain involved in the physiologic adaptations of adolescence and early adult life probably is an important contributing factor.

The report was made in *The Public Health News* of Oakland, Calif.

Fatal accidents cause one fourth of the deaths of school children and more than 45 per cent of these are due to motor drivers' carelessness, parental neglect and childhood thoughtlessness.—*Ohio Health News.*

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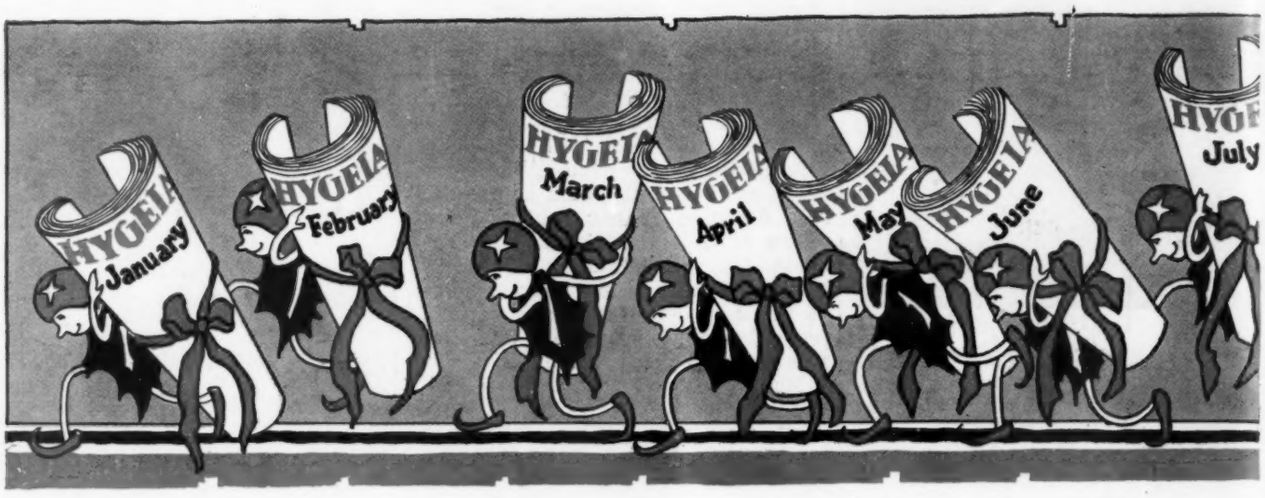

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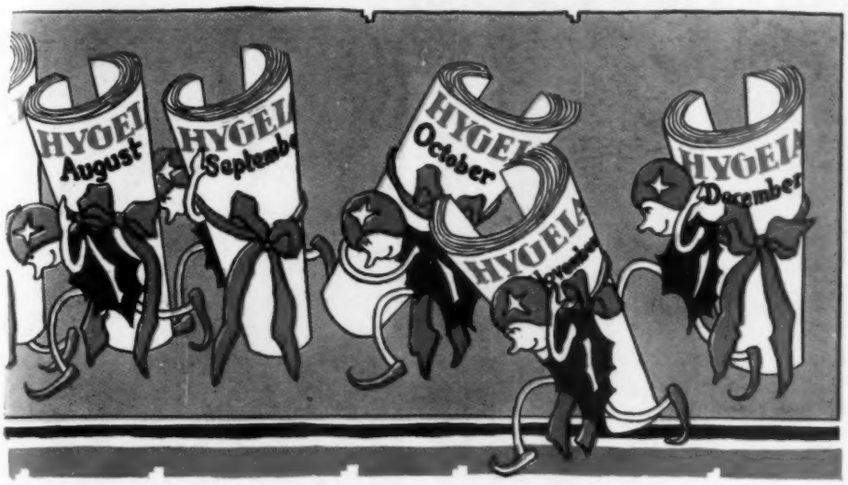

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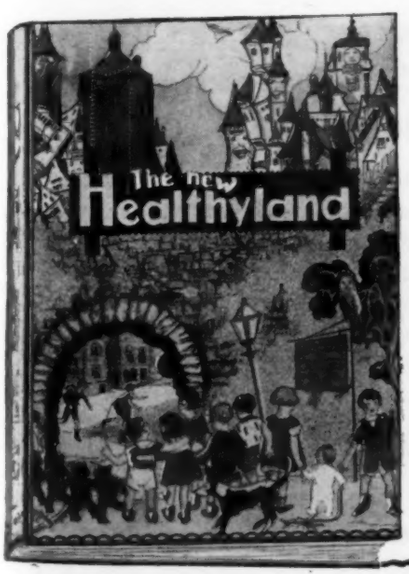

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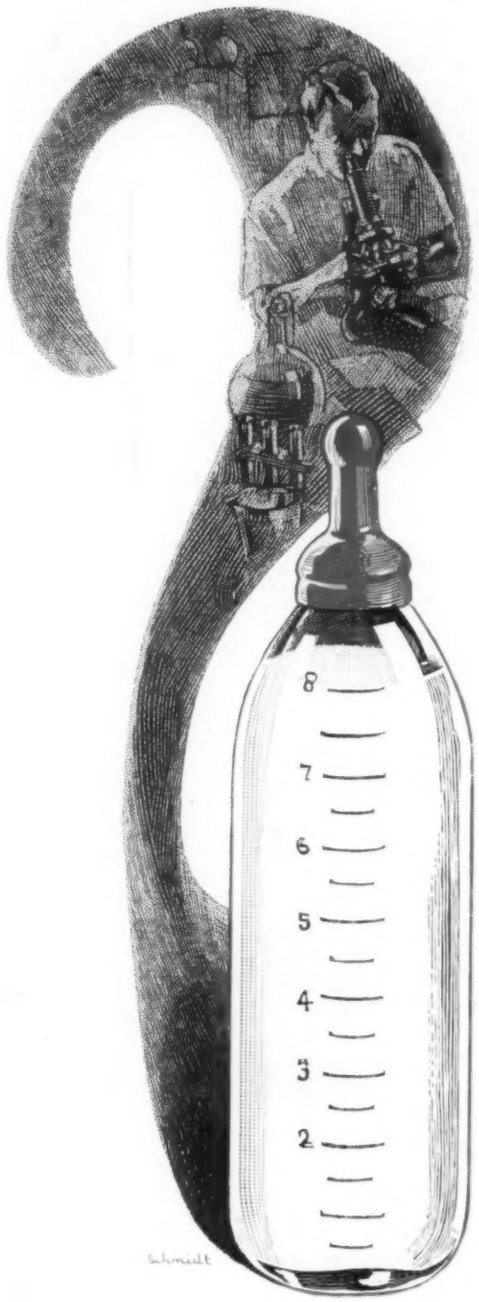

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ACCEPTED AMERICAN MEDICAL ASSN. Committee on Foods

Please send me, free of charge,

☐ *"A Safer World for Babies"* ☐ *"More Milk—Smaller Bills"*
☐ *"Feeding the Family at Low Cost"* ☐ *List of Free Publications*

*Name*_____

*Address*_____

City_____ State_____ H 12-32

Is your child too tired to eat?

Give him Horlick's and watch appetite respond

Child specialists say that one reason for the lack of interest of the child at dinner time is because the child is too tired to eat. Children play hard during the day and especially after school is out in the afternoon. By night they're all worn out—just too tired to sit up and eat. Just try giving your child a glass of Horlick's after school for a few days, and watch the appetite improve. And be sure that it is Horlick's Malted Milk, because when health is at stake, it doesn't pay to try to economize by using cheap quality foods.

ACCEPTED AMERICAN MEDICAL ASSN.

THE ORIGINAL MALTED MILK

HORLICK'S

Horlick's Malted Milk Corporation
Racine, Wisconsin

HORLICK'S MALTED MILK CORP.
Dept. H-18, Racine, Wis.

Please send me.....weight charts for pre-school children and.....charts for school children for recording by a graph the weight progress of individual children.

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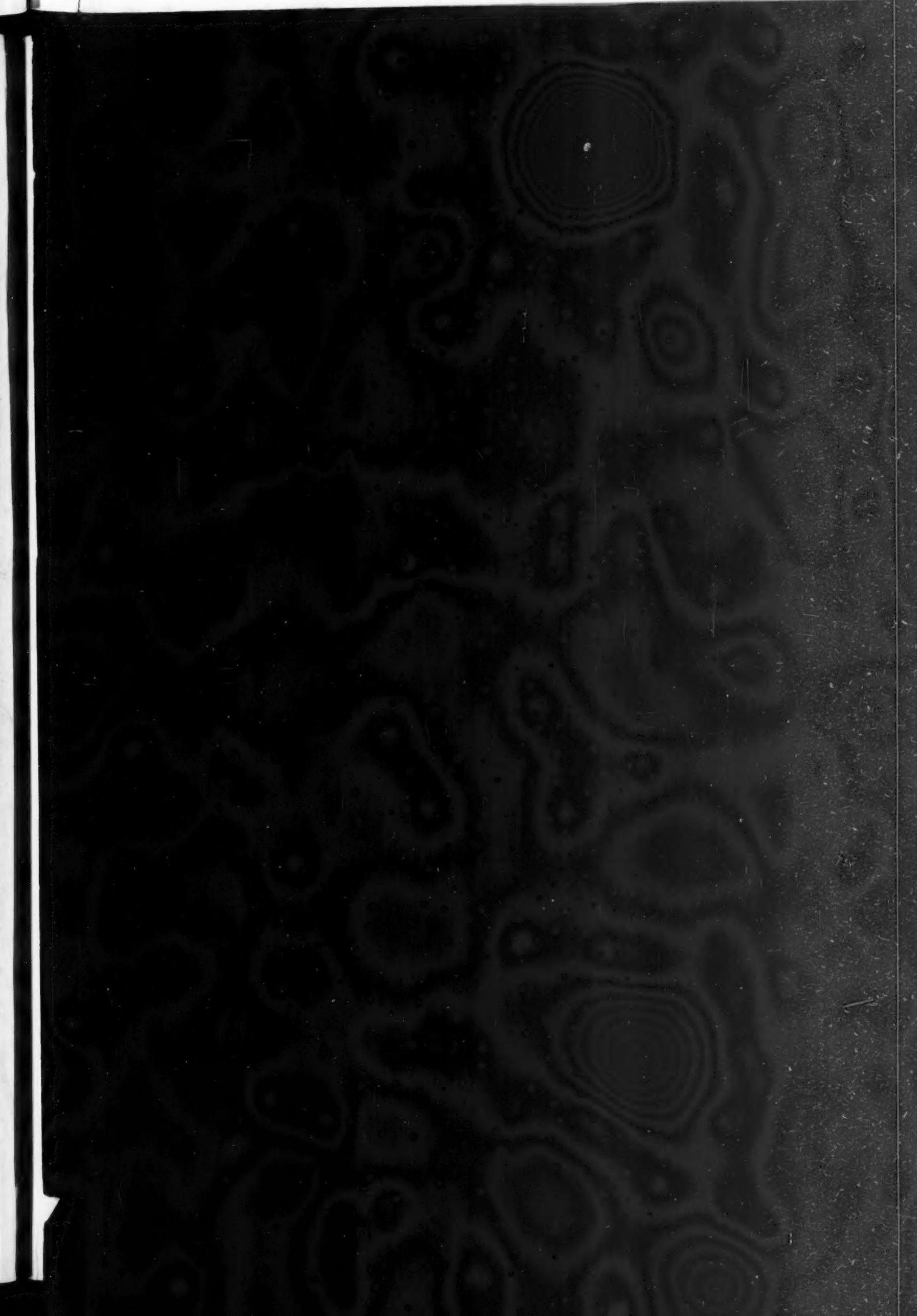
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